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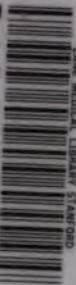
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THE
HISTORY OF MEDICINE
IN THE
UNITED STATES

A COLLECTION OF FACTS AND DOCUMENTS RELATING TO THE
HISTORY OF MEDICAL SCIENCE IN THIS COUNTRY, FROM
THE EARLIEST ENGLISH COLONIZATION TO
THE YEAR 1800

WITH A SUPPLEMENTAL CHAPTER ON
THE DISCOVERY OF ANÆSTHESIA

BY
FRANCIS RANDOLPH PACKARD, M.D.

ILLUSTRATED



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To the Memory
of
my Mother

PREFACE.

AN effort has been made in the following pages to collect as many facts as possible regarding the rise of medical science in this country. But few data are accessible on the subject, but I trust that this book may have the effect of stimulating others to work in the same direction. Although there have been many books and essays published regarding the local medical history of different parts of the United States, I know of no other effort in the direction of a general history of early medicine. The work has occupied many years, and has been truly a labor of love to the author, who hopes it may possess a corresponding interest to others. It should be regarded rather as a series of essays and compilations, than in the light of a continuous historical work.

I have received help in my work from too many sources to admit of complete acknowledgment in the present place. I desire, however, to express my thanks to Mr. C. C. Febiger for the most kindly and practical advice in its preparation; to Dr. T. G. Morton, Mr. D. D. Test, and the Board of Managers of the Pennsylvania Hospital, for their liberality in permitting me to make free use of the plates used in the history

of that institution; and to the editors of the *Philadelphia Medical Journal*, the *Journal of the American Medical Association*, and the *Carolina Medical Journal*, for permission to reprint matter which had appeared in their columns. My thanks are also due to Dr. William F. Norris, of Philadelphia, who kindly permitted me to reproduce the pictures of Dr. Chovet and Dr. Morgan which are contained in the "Early History of Medicine in Philadelphia," and to Dr. Eugene F. Cordell, of Baltimore, who allowed me to reproduce the picture of Dr. Frederick Wiesenthal which accompanied his account of that anatomist in the Johns Hopkins Hospital Bulletin.

FRANCIS RANDOLPH PACKARD.

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THE HISTORY OF MEDICINE

IN

THE UNITED STATES.

CHAPTER I.

MEDICAL EVENTS CONNECTED WITH THE EARLY HISTORY OF THE ENGLISH COLONIES IN AMERICA.

IN the records of the settlement of this country we find but few instances in which the expedition was accompanied by a regularly appointed physician or surgeon.

The Court of Assistants in London on March 5, 1682, made the following appointments: ¹

"A Proposicon beeinge made to Intertayne a surgeon for [the] plantacon Mr. Pratt was ppounded as an abell man vp[on] theis Condicons Nameley That 40*lb* should bee allowed him viz for his Chest 25*s* the Rest [for] his owne sallery for the first yeere prouided yt he [continue] 3 yeeres the Comp. to bee at Charge of transporting his wiffe & a ch[ild] have 20^l a yeere for the other 2 yeeres & to build him a ho[use at] the Comp Chardge & to allott him 100 acrs of ground but if he stay but one yeere then the comp to bee at Chardge of his bringing back for England & he to Leaue his sru[ant] and the Chist for the Comp service."

"Agreed wth Robert Morly sruant to Mr. Andrew Matthewes late barber surgeon to srve the Comp. in Newe England for three y[ears] the first yeere to have 20 nobles the second yeere (30) and the third 20 markes, to serve as a barber & a surgeon [on all] occasyons belonging to his Calling to aney of this [Company] that are planters or there servants, and for his [chest and] all in it

¹ Green's History of Medicine in Massachusetts, p. 16.

whereof he hath geeuen an Inventory . . . sight of It bee approoved ffive pounds Is—and payd to him ffor it & the same to bee fo(rth-with payd)."²

We know that Pratt settled in Cambridge and pursued his profession there. His untimely end is recorded by Governor Winthrop.³ It appears that in 1645 he sailed for Spain in a vessel built and sailed by Thomas Hawkins, of Boston, and that when in sight of the Spanish coast they struck a rock, the vessel sank, and Pratt perished. Winthrop says of him, "He was above sixty years of age, an experienced surgeon, who had lived in New England many years, and was of the first church at Cambridge in Mr. Hooker's time, and had good practice and wanted nothing. But he had long been discontented because his employment was not so profitable to himself as he desired, and it is like he feared lest he should fall into want in his old age."

In April, 1629, the "Governor and Company of the Massachusetts Bay in New England" issued a general letter addressed to John Endicott, the leader of the settlers at Salem, in which they informed him that they had agreed with Lambert Wilson, chirurgion, that he should act as surgeon to the settlers, and also to the neighboring Indian tribes, for three years, and he further engaged to give a medical training to one or more of the young men of the colony.

The colony at Jamestown, Virginia, was the first settlement permanently established by the English in North America, having been first settled in 1607.

Toner⁴ mentions Dr. Thomas Wootton as among the

² General Court Records, i. 3a.

³ History of New England.

⁴ Contributions to the Annals of Medical Progress and Medical Education in the United States, etc.

first colonists at Jamestown, and speaks of him as surgeon-general of the colony. He endured many privations along with his fellow-emigrants, their food-supplies giving out and they being obliged to subsist themselves solely on crabs and sturgeon for a long time.

One year after the founding of Jamestown Dr. Walter Russel arrived there. He accompanied the famous Captain John Smith on one of his numerous voyages of exploration up the various rivers and bays of the coast of Virginia, and when the doughty captain sustained some injuries Dr. Russel attended him. He also attended an Indian chief who had a gunshot wound of the knee.

A certain Dr. Anthony Bagnall was surgeon to the fort at Jamestown in 1608 and accompanied Captain Smith on a voyage from Jamestown to Nausamond, which is now the city of Norfolk. Once, while making a professional call, Dr. Bagnall was shot at by an Indian, the arrow passing through his hat, but fortunately not injuring him.

None of these physicians stayed long in the colony, however, for in 1609 Captain Smith was injured by the explosion of some gunpowder, and was obliged to return to England for surgical treatment, "For there was neither chirurgeon nor chirurgery at the fort."

Dr. Lawrence Bohun studied medicine in the Low Countries and afterwards went to Virginia, arriving there in 1610, and was physician-general of the colony in 1611. When Lord Delaware was obliged to leave Virginia and go to the West Indies for his health, in March, 1611, Dr. Bohun accompanied him in a professional capacity. The doctor was killed in a fight with a Spanish war-ship.

After his death Dr. John Pot, who was subsequently made governor of the colony for a short time in 1628,

was appointed physician-general, having been recommended for that position by Dr. Gulstone.⁵

There is mention in the early annals of New York of several medical men who accompanied ships in the official capacity of surgeons, but whether they were settled in the colony in the same capacity is doubtful. Thus, Hermain Mynderts Van de Bogaerdet came out as a surgeon of the ship "Endragh," in 1631, and William Deeping was surgeon to the ship "William," of London, which was engaged in trading in the Hudson River in 1633.

Toner⁶ quotes from the charter given the Dutch West India Company by the States-General the following:

"The patroons and colonists shall, in particular, and in the speediest manner, endeavor to find ways and means whereby they may support a minister, and a schoolmaster, that thus the service of God and zeal for religion may not grow cool and be neglected among them, and that they do for the first procure a comforter for the sick."

Likewise he quotes from a law submitted by the Directors in 1738 the following section, which provides

"For the maintenance of preachers, comforters of the sick, schoolmasters, and similar necessary officers, each householder and inhabitant shall bear such contributions and public charge as shall hereafter be considered proper."

In Pennsylvania the earliest settlements were made by the Swedes and Dutch. In 1638, Jan Peterson, of Alfen-dolft, was "barber" to one of the colonies of Swedes on the Delaware, his salary being ten guilders a month.

The years 1642, 1657, and 1658 were very sickly.

⁵All these facts about the earliest physicians in Virginia are derived by Toner from Stith's "History of Virginia" and the "History of the Virginia Company of London."

⁶Loc. cit.

Norris⁷ quotes the following from a letter written in 1658 by Alricks, the Director of the Colony of New Amstel (Newcastle) on the Delaware:

"Our barber surgeon died, and another well acquainted with his profession is very sick."

In 1650 the governor was notified that the company "are much in want of a surgeon," and Peter Tyneman wishes the position. In 1657 one Jan Oosting was surgeon at New Amstel.

The following letter, written October 10, 1658, is printed by Henry,⁸ and gives us a little insight into some of the medical affairs of the time. It is from one of the Dutch colonists, William van Raenberg, who came over as surgeon, and puts forth sundry claims against people whom he attended on the passage, inasmuch as his wages did not run at that time and on the voyage, and he used his own provisions.

"There were on board the ship considerable sickness, accidents and hardships in consequence of a tedious voyage. One hundred souls required a hogshead or two of French wine and one of brandy, and a tub of prunes had also to be furnished for refreshment and comfort to those sick of scurvy and suffering from other troubles, thro' the protracted voyage; for, from want thereof the people became so low that death followed, which is a pretty serious matter. Here, on shore, I see clearly that the poor, weak, sick or indigent, sometimes have need necessarily of this or that to support them, which one cannot easily, or will not, refuse; though it be sometimes but a spoonful, frequently repeated, it amounts to more than is supposed. The barber also speaks of a house which Master Jan occupied being too small for him; he hath a wife, servant and child or children also. If he hire, as he says, at the expense of the city, he shall be obliged to show a paper to that effect."

⁷ Early History of Medicine in Philadelphia.

⁸ History of Medicine in Philadelphia.

Norris⁹ mentions John Goodson, "Chirurgion to the Society of Free Traders," as probably the first practising physician in Pennsylvania. Norris says nothing is known of him save his removal to Philadelphia from Upland after short residence in the latter place, and that he came from London and was a man of merit. He came to Pennsylvania shortly before the arrival of William Penn.

I have gathered together as much information as I could regarding those who practised medicine in the infancy of the several colonies. There is not in reality much available, but it is of great interest, as those men laid the seed of future medical progress in this country, and many of them seem to have been possessed of much ability and medical learning, such as it was in their day. In Massachusetts especially we find many colonists who used their "skill in physick" for the benefit of their fellows. Let us begin, then, with that colony, and, after having considered the physicians of its early days, proceed to the consideration of the physicians of the various other settlements.

The earliest practitioner of medicine in Massachusetts was Samuel Fuller, who was among the passengers on the "Mayflower" in 1620. He was a deacon of the church at Plymouth, and is continually referred to in the ancient records as the surgeon of the settlement, although he held no medical diploma, nor was his position as such officially recognized. He had been deacon in the Rev. John Robinson's church in Leyden, and when he came to this country he made his home at Plymouth, but he served as medical adviser to all the colonies about that part of Massachusetts Bay. After Endicott's arrival in

⁹ Loc. cit.

1628 at Salem many of the people in his colony were sick of the scurvy, and a number died from lack of proper food and shelter. Endicott requested Fuller to come over from Plymouth and help the people of Charlestown and Salem in their distress, a request with which he cheerfully complied. His first visit to Salem was in 1628, and he went there again in 1629, the occasion of his second visit being an outbreak of sickness among some recently arrived emigrants. On his return to Plymouth Governor Endicott addressed a letter to Governor Bradford on May 11, 1629, in which he says,—

“I acknowledge myself much bound to you for your kind love and care in sending Mr. Fuller among us, and rejoice much that I am by him satisfied touching your judgements of the outward form of God's worship. It is as far as I can gather, no other than is warranted by the evidence of truth, and the same which I have professed and maintained ever since the Lord in mercy revealed himself unto me, being far from the common report that has been spread of you touching that particular.”¹⁰

From which it would appear that the good deacon had exercised spiritual as well as physical healing skill to bring about a union between these two great leaders of the Puritans.

In a letter to Governor Bradford, written June 28, 1630, Fuller says, “I have been to Matapan [Dorchester], and let some twenty of those people blood.” Old Thacher quotes this and adds, “What disease prevailed among those people that required the loss of blood in the warm season of June, we are unable to determine.”

Thacher says of Fuller, “In his medical character, and for his Christian virtues and unfeigned piety, Dr. Fuller was held in the highest estimation and was resorted to as a father and wise counsellor during the

¹⁰ John Brown, *Pilgrim Fathers of New England*.

perils of the day. He was one of several heads of families who died of a fever which prevailed in Plymouth in the summer of 1633, and was most deeply lamented by all the colonists."

His wife was held in great esteem as a midwife.

In Mowrt's "Relation" there are several instances of Fuller's professional services to their Indian neighbors as well as to the colonists themselves. When the English sent out an expedition against the Indian chief Corbitant to avenge the supposed death of Tisquantum, their interpreter, they brought back two Indians whom they had wounded to the settlement, where Fuller dressed their injuries. He also attended the sick of Thomas Weston's colony at Wessagusset (Weymouth), although the settlers at that place had behaved in a most unneighborly manner towards those at Plymouth.

In February, 1862, Dr. Oliver Wendell Holmes communicated to the Massachusetts Historical Society a paper on a manuscript found in the collection of Winthrop Papers which contained a list of recipes by one Dr. Ed. Stafford, of London, given to Governor Winthrop for the benefit of his colony in America.

Dr. Holmes thought that they had been written by Dr. Stafford in response to a request by Governor Winthrop for instructions as to what to do for the commoner ills of the flesh that the colonists might fall heir to. The paper was sent over in 1643, when Winthrop had been in America about thirteen years. Nothing whatever is known concerning Dr. Ed. Stafford except what may be gathered from this manuscript. Dr. Holmes described the document as follows:

"The manuscript consists of 3 sheets of coarse paper, about 6 by 7 inches in size. A little more than 8 pages and a half are written over, and it is inscribed on the back,

'For my worthy friend Mr. Winthrop.'

A different and probably a later hand has also written on the back,

'Receipts to cure various Disorders.'

The seventh page is not in the same handwriting as the rest. The margins are ruled as if with lead pencil. The handwriting with the exception of the seventh page is very neat, small, but perfectly legible."

Gerard's Herbal is the only work quoted by Dr. Stafford; he spells the name *Gerrit*.

The Manuscript.

"FOR MY WORTHY FRIEND MR. WINTHROP.

"1. For Madnesse:—Take ye herbe Hypericon (; in English St. John's Wort) and boile it in water or drinke, untill it be strong of it, and redd in colour; or else, putt a bundle of it in new drinke to Worke, and give it ye patient to drinke, permitting him to drinke nothing else. First purge him well with 2 or 3 seeds (; or more, according to ye strength of the partie;) of spurge.

"Let them not eat much, but keepe dyet, and you shall see Wondrous effects in fewe days. I have knowne it to cure perfectly to admiration in five days.

"2. For ye Falling sicknesse Purge first with ye extract of Hellebore (; black hellebore I meane;) and instead of St. John's Wort, use pentaphyllon, (or meadow Cinquefoile;) Use it as above is said of St. John's Wort, and God Willing he shall be perfectly cured in short or longer tyme, according as the disease hath taken root.

"3. For ye Mother—Give ye patient as much as will goe upon 6 pens, or a shilling, each morning, of ye powder of ye greate Bryonie roote.

"4. For Implicat or mixt diseases, as Lethargie or Vertigo, &c Mixe either two or more of these above said in ye patien's drinke.

"5. For disease of ye Bladder,—Give ye partie to drinke (if it be an inflammation heat of Urine;) emulcions made with barlie, huskt almonds, and ye 4 great cold seeds, if his drinke hath been strong before; but if small drinke and water, give him old Maligo and Canarie, such to drinke Warme either by itselfe or mixt with Water; And applie to the region of his bladder, a poltis made with barlie meale, and ye rootes or leaves of Aaron; make Injections of ye decoction of Hypericon, ye barke of a young Oake

perils of the day. He was one of several heads of families who died of a fever which prevailed in Plymouth in the summer of 1633, and was most deeply lamented by all the colonists."

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(; the Outward black skim being taken off;) and linnseede; and by God's grace he shall finde present ease and cure with continuance.

"6. For ye stopping of ye Urine, or ye Stone—Give ye partie to drinke of ye decoction of maiden hayre, fennell rootes, and parsley rootes. Let him drinke great quantities. But before lett him drinke 2 or 3 ounces of ye Oyle of Allmonds newly extracted, or more; Or let him swallow a quarter of a pound of new butter made into round bullets, and cast into faire water to harden them.

"7. For ye Bloodie Flix: Purge first with Rhubarbe torrified; and give the partie to drinke twice a day a pint of this caudle following: Take a dragme of ye best Bole-Armoniack, a dragme of Sanguis draconis; and dragme of ye best terra Segillata of a yellow colour seal'd with a Castle; Make these into a fine powder, and with a quart of red stiptick Wine, the yolks of halfe a dozen eggs, & a quantitie of sugar, make a Caudle, boyling the powder in a pipkin with the Wine; then adding ye yolks of ye eggs beaten, and lastly ye Sugar.

"If his gutts have been fretted, give him ye Injection for ye bladder before mentioned, in a glister; and if you please you may adde to it the powders.

"8. For the yellow Jaundise or Jaunders—Boyle a quart of sweet milke, dissolve therein as much bay-salt, or fine Sal-peter, as shall make it brackish in taste; and putting Saffron in a fine linen clout, rubb it into ye Milke, untill ye Milke be very yellow; and give it ye patient to drinke.

"9. For paines in ye Brest or Limmes: Weare a Wilde Catts skin on ye place grieved.

"10. For a broken bone, or a joynt dislocated, to knit them: Take ye barke of Elme, or Witch-hazzle; cutt away the Outward part, and cutt ye Inward redd barke small, and boyle it in Water, till it be thick that it will rope; pound well, and lay of it hott, barke and all upon ye Bone or Joynt, and tye it on; or with ye Mussilage of it, and bole Armoniack make a playster and lay it on.

"11. My Black powder against ye plague, small pox; purple, all sorts of feavers; Poyson either by Way of prevention, or after Infection. In the Moneth of March take Toades, as many as you will, alive; putt them into a Earthen pott, so it will be halfe full; Cover it with a broad tyle or Iron plate; then overwhelme the pott, so yt ye bottome may be uppermost; putt charcoales round about it, and in the open ayre, not in an house, sett it in fire and lett it burne out and extinguish of itself; When it is cold, take out the toades; and in an Iron-Morter pound them very well and searce them—then in a Crucible calcine them so againe; pound and searce

them againe. The first time they will be browne powder, the next time black. Of this you may give a dragme in a Vehiculum (or drinke) Inwardly in any infection taken; and let them sweat upon it in their beddes; but lett them not cover their heads; especially in the Small pox. For prevention, half a dragme will suffice; moderate the dose according to ye strength of the partie; for I have sett downe ye greatest that is needfull. There is no danger in it. Let them neither eate nor drinke during their sweat, except now and then a spoonefull of Warme posset-drinke to wash their mouthes. Keep warm and close, (for a child of 5 years, 10 graynes is enough in infection, for prevention 4 or 5 graynes) till they be perfectly well; and eate but little and that according to rules of physicke.

"The same powder is used playster wise with Vinegar for gangrene, or bite of anie Venomous beast, taking it likewise, Inwardly; it is used likewise for all Cankers, Fistulas & old Ulcers & Kings Evill, strewing it upon the sore, and keeping them cleane.

"12. An other for old Soares. Take St. John's Wort, pound it small, and mingle it with as much quicklime; powre on it raine Water, that may cover, six fingers deepe in a broad earthen Vessell, putt in to ye sunne, and stirre it well once every day for a Moneth; then filter and reserve the water for your use. Wash ye soares with it; it cureth Wonderfully.

"13. For Burning with Gunn powder or otherwise—Take ye Inner green Rine of Elder, in latine Sambucus, Sempervive, and Mosse that groweth on an old thacht howse top, of each alike; boyle them in stale (lotium), and sallet oyle, so much as may cover them 4 fingers; Let all the (lotium) boyle cleane away, & straine very well; putt new herbes and (lotium) as before, boyle that likewise away, and straine it as before. Then to that oyle adde barrowes grease until it come to be an Oyntment, with which anoynt a paper, and lay it to ye burning anoynting the place also with a feather.

"14. For Soare Brests—Take yolkes of eggs and honie alike, beat them till they be very thinn; then with wheat flower beat them, till it be as thick as honey; spread it upon flax, and lay it upon the Brest, defending the nibble with a plate of lead as bigg as an halfe crowne, and an hole in it so bigg that nibble may come out—renewe it every twelve houres; and this will breake and coole the Brest. When it breakes, tent it with a salve of rosen, wax & terpertine alike quantitie.

"15. For Breaking of any Biles or great Swellings: If that poltis next above for the sore Brest doe not breake it, pound fox-glove, and lay it to it, and that will; then tent it as for the sore Brest.

"16. For a greene Wound—Take salve of Clownes Wort, or Clownes all-heal prescribed in Gerrits Herball; or the Oyle of Hypericon and Ballsam.

"17. For the King's evill—Take 2 Toades & let them fast 2 or 3 dayes that they may spewe out their Earth, then boyle them in a pint of Oyle in a newe pipkin covered so long, till they be brought to a black Coale broken in peeces—presse out the Oyle from the said Toades, reserve a 4th part, to the other three parts adde halfe a pound of yellow wax, shaved small—let the wax melt in the Oyle in wch. dippe the linnen cloathes, that they may be well covered cere-cloathes—with the 4th part of the Oyle left annoynt all the places infected, & then strewe of my black powder of Toades (mentioned before for an Antidote agaynst the Plague) upon the sores or swellings, & then put on of ye Cerecloth.

"dresse the running sores once everie 24 howres, but it will serve to dresse the swellings once in 4 dayes. Everie 4th day at furthest give of ye said black powder to the partie & let them swet upon it. you may proportion the dose from 5 graynes to a dragme according to the strength & constitution of ye partie—if the partie be strong, it is the better that they swet everie day or everie second day.

"By this course there is no doubt of the Cure by God's assistance.

"CAUTIONS IN PHYSICK.

"1. That you doe not let Blood, but in a pleurisie or Contusion, and that necessitated.

"2. yt in the beginning of all Feavers, you fast 2 or 3 days from meate and drinke, except ye last day, and that so little, as only to sustain Nature; and afterward you come to your dyet by degrees.

"3. yt you purge to follow Nature and not to contrarie her; as if the partie Vomit, you purge by vomit; if the partie be loose you purge downwards; if the partie bleed at ye nose, ye draw blood.

"4. yt in all purges you administer in long diseases, or to weake persons, you mixe Cordials as Confectis Alchermes, etc. And yt you purge with simples and not compounds, except the disease be mixt.

"THE BEST PURGES.

Rhubarbe, or rather ye tincture of it for Choller. Jallop for humors. Agarick for flegme. Extraxt of Scammonie, or black Hellebor, for Melancholie.

Puie de Inde halfe a Kernell for mixt humors.

Crocus Metallarum well-prepared for mixt humors.

Spurge seede for ye head.

"THE BEST SUDORIFICKS.

Being simples; Snake roote; Contra yerva.

The Best gumms for drawing,—Tackamahacka Carama, Kercman;

Burgundie pitch; These may be used simple or mixt for old aches and paines.

"*Nota bene* No man can with a good Conscience take a fee or a reward before ye partie receive benefit apparent; and then he is not to demand anything, but what God shall putt into the head of the partie to give him. And he is not to refuse anything, that shall be so given him, for it comes from God.

"A man is not to neglect that partie, to whom he hath once administered, but to visit him at least once a day, and to medle with no more than he can well attend. In so doing he shall discharge a good Conscience before God & Man,

"These receipts are all experimented.

(Signed) "ED. STAFFORD.

"LONDON. May 6th 1643"

I think this manuscript possesses a peculiar interest in that it may be looked upon as the standard, if not the only medical text-book in the colony. It shows also that Governor Winthrop was desirous of providing to the best of his ability for the physical welfare of those in his charge. It was not so uncommon then, as it is now in these days of cheap medical advice and free dispensary services, for laymen to assume the functions of physicians, and a man having a store of prescriptions such as those of Dr. Stafford in his possession would be regarded as quite an oracle in medical science.

In the inventory of Governor Winthrop's estate which was filed after his death we find the following item:

"3 sirenges — 2 tree pans"

From which we may possibly infer that the governor thought it well to provide a few instruments to meet surgical emergencies, although they may have simply got among his things in the course of years spent in the same house.

Governor Winthrop's son, John Winthrop, Jr., was famous throughout the New England colonies for his medical skill. He was governor of Connecticut and a man of such scientific attainments as to be a founder of the Royal Society of Great Britain.¹¹

In the "Massachusetts Historical Society's Collections," fourth series, vol. vii., are preserved a number of letters written to him by various colonists on medical matters, some seeking advice, others returning thanks for advice which he had previously given. Some of them are very interesting and show the most implicit faith in his skill.

Theophilus Eaton writes,—

"My wife with thankfulness acknowledges the good she hath found by following your directions, but doth much desire your presence here, as soone as the season, & your occasions will permit, both in refference to my daughter Hopkins, and my daughter Hannah, who hath bin exercised these 4 or 5 days with vapours rising (as we conceive) out of her stomach into her head, hindering both her sleepe & appetite to meate, and apt to putt her into fainting fitts, whether from winde, or the mother, or from what other cause I cannot informe."

Daughter Hopkins, it is pleasing to learn from a subsequent letter, obeyed directions:

"Besides other things you left for her, the 9th of this month, she tooke the first potion of purging physick, which I heare wrought

¹¹It is a curious fact, mentioned by Beck in his "Historical Sketch of the State of American Medicine before the Revolution," that four American physicians,—namely, Dr. Zabdiel Boylston, of Massachusetts; Dr. John Morgan, of Pennsylvania; Dr. John Mitchell, of Virginia; and Dr. Alexander Garden, of South Carolina, had been honored by election to the Royal Society of Great Britain, and that ten other Americans were also members,—namely, four of the Winthrop family, Paul Dudley, Leverett, Thomas Brattle, Cotton Mather, Benjamin Franklin, and David Rittenhouse, in ante-Revolutionary times.

well." "My daughter Hopkins hath kept her bed since she took physick, and my wife is in some doubt whether she should give her any more of it till she have your advice."

The following letter from John Endicott to Winthrop gives us an insight into some of the substances which he used in his practice:

"Worthie Sir—I am sorrie to heare of your affliction in this visitation of God; though you know that when he loveth he chastiseth. Let that comfort you, etc.

"I have sent you of all I have, or what I can gett; viz Syrup of Violets, Sirrup of Roses, Spirits of Mint, Spirits of Annis, as you may see written upon the severall vials, I have sent you Mrs. Beggarly her vnicornes horne, & Beza stone I had of Mr. Humfry, who is sorry also for your exercise. I have sent you a Be[z]oar stone, & mugwart & organie, if you should have need of it. They are both good in this case of your wife, & also I have sent you some Galingall root. Mrs. Beggarly knows the vse of it. If the fitt of the mother come verie violently, as you write, there is nothing better to suppress the rising of it than sneezing; a little powder of tobacco taken in her nose, I think is better than Helibore. If I knew how or which way in this case to do her good, I would, with all my heart, and would now have come to you, but I am altogether vnskilfull in these cases of women."

There are two amusing letters in the collection from William Leete to Winthrop. The first details the eye-trouble which afflicted his youngest child. The second mentions, what was then a very common practice, the administration of powders in beer.

(1) "Our youngest childe, about 9 weeks old, ever since it was 3 or 4 dayes old, hath appeared full of red spots or pimples, somewhat like to measles, & seemed allwayes to be bigg, and to hang ouer on the eybrowes & lids; but now of late the eye lidds have swelled & looked very red, burneing exceedingly, & now at last they are swelled up that the sight is vtterly closed in, that he could not see, nor for suerall dayes, nor yet doth, & the verges of the lids, where they close, have a white seame, like the white heads of wheales wherein is matter; it is somewhat extraordinary such as none of our women can tell that they have ever seene the like."

(2)

"GUILFORD June 22, 1658.

"SIR, you were pleased to furnish my wife with more cordiall powders by John Crane for Graciana [his daughter] but no directions within or amongst the papers can we find; but truly one of the most needful directions is how to make her willing & apt to take it, for though it seemes very pleasant of itself yet is she grown so marvellous awkward & averse from takeing it in beer. Wherefore I would entreat you to prescribe to vs the varyety of wayes in which it may be giuen so effectually; wee doubt els it may doe much lesse good, being giuen by force only."

There is also a letter from Edward Cooke, of London, to Winthrop, dated July 20, 1640, introducing Mr. Birde, who was desirous of settling as a physician to the colonists:

"The occasion of this letter, is in behalfe of a learned Gentlemen of my acquaintance, Mr. Birde, who I vnderstand hath written to your selfe to bee entertayned of the people in your parts as a phisition, & well knowinge his sufficiencies in the practize of physick, my request to you is, that you would bee pleased to further him in his desires, which if you shall please to doe, I am assured you will not repent thereof; & I shall take this your kindness as an espetiall favour to myself."

Indorsed by Winthrop, "Mr. Cooke for Mr. Birde."

John Josselyn,¹² an Englishman who came twice to this country and spent considerable time in the early settlements of Massachusetts, has left us some most interesting and picturesque accounts of affairs of interest in the early medical annals of America. He was a very keen observer and studied the natural products of the new country with a naturalist's ardor. Some of his observations on the medical properties of plants are very quaint. He says that no opium is found in America, but that white hellebore is used as a substitute.

¹² An Account of Two Voyages to New England, by John Josselyn, Gent., London, 1674. Massachusetts Historical Society Collections, third series, vol. iii.

"The English in New England take white Hellebore, which operates as fairly with them as with the Indians, who steeping of it in water sometime, give it to young lads gathered together a purpose to drink, if it come up they force them to drink again their vomit, (which they save in a Birchen-dish) till it stayes with them, & he that gets the victory of it is made Captain of the other lads for that year."

He found another plant, "called for want of a name Clownes wound wort, by the English, though it be not the same, that will heal a green wound in 24 hours, if a wise man have the ordering of it," and he says, "The Indians tell of a Tree that grows far up in the land, that is big as an Oake, that will cure the falling-sickness infalibly, what part thereof they use, Bark, Wood, leaves or fruit, I could never learn; they promised often to bring of it to me, but did not." There is a little touch of pathos, I think, in the last account, indicating his disappointment at his failure to find such a wonderful tree.

Every smoker will appreciate his commendation of tobacco:

"The vertues of Tobacco are these, it helps digestion, the Gout, the Tooth-Ach, prevents infection by scents, it heats the cold and cools them that sweat, feedeth the hungry, spent spirits restoreth, purgeth the stomach, killeth nits and lice; the juice of the green leaf healeth green wounds, although poysoned; the Syrup for many diseases, the smoak for the Phythisick, cough of the lungs, distillation of Rheume, and all diseases of a cold and moist cause, good for all bodies cold and moist taken upon an emptie stomach, taken upon a full stomach it precipitates digestion, immoderately taken it dryeth the body; enflameth the blood, hurteth the brain, weakens the eyes and sinews."

Of the diseases to which the Indians were subject he says,—

"The great pox is proper to them, by reason (as some do deem) that they are Man-eaters. . . . In New England the Indians are afflicted with pestilent Feavers, Plague, Black-pox, Consumption of the Lungs, Falling-sickness, Kings-evil, and a Disease in the

back, with us Empyema. Their physicians are the Powaws or Indian Priests who cure sometimes by charms or medicines, but in a general infection they seldom come amongst them, therefore they use their own remedies, which is sweating, &c. Their manner is when they have plague or small pox amongst them to cover their Wigwams with Bark so close that no Air can enter in, lining them (as I said before) within, and making a great fire till they are in a top sweat, and then run out in the Sea or River, and presently after they come into their Hutts again they either recover or give up the Ghost."

Of the diseases from which the English suffered, he says,—

"The Diseases that the English are afflicted with are the same that they have in England, with some proper to New-England, griping of the belly (accompanied with Feaver and Ague) which turns to the bloody-flux, a common disease in the Country, which together with the small pox hath carried away abundance of their children, for this the common medicines amongst the poorer sort are Pills of Cotton swallowed, or Sugar and Sallet-oyl boiled thick and made into Pills, Aloes pulverized and taken in the pap of an Apple. I helped many of them with a sweating medicine only. . . . Also they are troubled with a disease in the mouth or throat which hath proved mortal to some in a very short time, Quinsies, and Imposthumations of the Almonds, with great distempers of cold. Some of our New England writers affirm that the English are never or very rarely heard to sneeze or cough, as ordinarily they do in England, which is not true. For a cough or stitch upon cold, Wormwood, Sage, Marygolds, and Crabs-Claws boiled in posset-drink and drunk off very warm, is a sovereign medicine. Pleurisies and Empyemas are frequently there, both cured after one and the same way; but the last is a desperate disease and kills many. For the Pleurisie I have given Coriander-seed prepared, Carduns seed, and Hartshorn pulverized with good success, the dose one dram in a cup of wine. . . . The Stone terribly afflicts many, and the Gout, and Sciatica, for which take Onions roasted, peeled and stampt, then boil them with Neats-feet oyl and Rhum to a plaister and apply it to the hip. Headaches are frequent, Palsies, Dropsies, Worms, Noli-me-tongere, Cancers, pestilient Feavers, Scurvies, the body corrupted with Sea-diet, Beef and Pork tainted, Butter and Cheese corrupted, fish rotten, a long voyage, coming into the searching sharpness of a purer climate, causeth death and sickness amongst them. . . . Men and Women keep their

complexions, but lose their Teeth; The Women are pittingly Tooth-shaken; whether through the coldness of the climate, or by sweetmeats of which they have store, I am not able to affirm."

The temptation to quote Josselyn at length is very strong, but I shall cease, only adding that his book is well worthy of perusal by all Americans interested in the early affairs of their country.

Another keen observer who has left us some interesting particulars regarding medical affairs among the Indians was John Lawson, who travelled in the Carolinas in 1700. He was surveyor-general of North Carolina and recorded what he saw in a "History of North Carolina," which he published in London in 1709. Like Josselyn he is very quotable. Thus he describes the manner in which the Seneca Indians were wont to mutilate their prisoners in order to prevent their escape as follows:

"The Indian that put us in our path, had been a prisoner among the Sinnegars [Senecas] but had outrun them, although they had cut his toes and half his feet away, which is a practice common amongst them. They first raise the skin, then cut away half the feet, and so wrap the skin over the stump and make a present cure of the wounds. This commonly disables them from making their escape, they being not so good travellers as before, and the impression of their half feet making it easy to trace them."

When Lawson was among the Tuscaroras he witnessed the ministrations of an Indian medicine-man to a young woman who suffered from fits. The medicine-man placed her "on her belly and made a small incision with rattle-snake teeth; then laying his mouth to the place he sucked out near a quart of black conglutinated blood and serum."

Another time one of his companions became lame in one knee. The chief at whose place they were staying, after looking at the injured member, "pulled out an instrument something like a comb, which was made of split reed, with fifteen teeth of rattlesnakes, set at much

the same distance as in a large horn comb. With these he scratched the place where the lameness chiefly lay till the blood came, bathing it both before and after incision with warm water spurted out of his mouth; this done, he ran into his plantation and got some sassafras root, which grows there in great plenty, dried it in the embers, scraped off the outward rind, and having beat it between two stones, applied it to the part afflicted, binding it up well. Thus in a day or two the patient became sound."

Lawson describes the methods in vogue among the Indian medicine-men in a most entertaining manner:

"As soon as the doctor comes into the cabin, the sick person is set on a mat or skin stark naked, except some trifle that covers their nakedness when ripe, otherwise, in very young children, there is nothing about them. In this manner the patient lies when the conjurer appears, and the King of that nation comes to attend him with a rattle made of a gourd with peas in it. This the King delivers into the doctor's hand, whilst another brings a bowl of water and sets it down. Then the doctor begins and utters some few words very softly; afterwards he smells of the patient's navel and belly; and sometimes scarifies him a little with a flint, or an instrument made of rattlesnake teeth for this purpose; then he sucks the patient and gets out a mouthful of blood and serum, but serum chiefly, which perhaps may be a better method in many cases than to take away great quantities of blood, as is commonly practised, which he spits in the bowl of water. Then he begins to mutter and talk apace, and at last to cut capers and clap his hands on his breech and sides, till he gets into a sweat, so that a stranger would think that he was running mad, now and then sucking the patient, and so at times keeps sucking till he has got a great quantity of very ill-colored matter out of the belly, arms, breast, forehead, temples, neck and moist parts, still continuing his grimaces and antic postures, which are not to be matched in Bedlam. At last you will see the doctor all over of a dropping sweat, and scarce able to utter one word, having quite spent himself; then he will cease for awhile, and so begin again till he comes in the same pitch of raving and seeming madness as before; all this time the sick body never so much as moves, although doubtless the lancing and sucking must be a great punishment to them, but they certainly are the patientest and most steady people under any burden that

I ever saw in my life. At last the conjurer makes an end, and tells the patient's friends whether the patient will live or die; and then one that waits at this ceremony takes the blood away, which remains in a lump in the middle of the water, and buries it in the ground in a place unknown to any one but he that inters it."

Lawson thought their prognosis was generally correct as to the outcome of the case.

Of the therapeutic agencies in use among the Indians Lawson says,—

"They cure scald heads infallibly, and never miss. Their chief remedy, as I have seen them make use of, is the oil of acorns, but from which sort of oak I am not certain. They cure burns beyond credit. I have seen a man burnt in such a manner, when drunk, by falling into a fire, that I did not think he could recover; yet they cured him in ten days so that he went about. I knew another blown up with powder, that was cured to admiration. I never saw an Indian have an ulcer or foul wound in my life; neither is there any such thing to be found amongst them. They cure the pox by a berry that salivates as mercury does; yet they use sweatings and decoctions very much with it, as they do almost on every occasion; and when they are thoroughly heated they leap into the river. They cure the spleen, which they are much addicted to, by burning with a reed. They lay the patient on his back, so put a hollow cane into the fire, where they burn the end thereof till it is very hot, and on fire at the end. Then they lay a piece of thin leather on the patient's belly, between the pit of the stomach and the navel, so press the hot reed on the leather, which burns the patient so that you may ever after see the impression of the reed where it was laid on, which mark never goes off so long as he lives."

For toothache they extracted the tooth by punching it out with a piece of cane set against it on a bit of leather.

Among other of Lawson's observations is the following:

"The struma is not uncommon amongst these savages, and another distemper which is in some respects like the pox, but is not attended with gonorrhœa. This not seldom bereaves them of their nose. I have seen three or four of them rendered most miserable spectacles by this distemper. Yet when they have been so negligent as to let it run on so far without curbing of it, at

last they make shift to patch themselves up, and live for many years after; and such men commonly turn doctors. I have known two or three of these no-nose doctors in great esteem among these savages."

One of the most interesting events in the early medical annals of the Massachusetts Bay settlements was the case of the Indian chief Massasoit, who was attended to by Edward Winslow, subsequently governor of the colony at Plymouth. News came to the latter place that Massasoit, who had always been on most friendly terms with the settlers, was sick unto death, and it was decided that it would be wise for the colonists to follow the Indian custom and manifest their friendship to him by sending some of their members to call on him and express their sympathy. Edward Winslow, John Hamden, and an Indian named Hobbamock were deputed for this purpose. What followed is best told as nearly as possible in Winslow's own words:¹³

"When we came thither we found the house so full of men as we could scarce get in; though they used their best diligence to make way for us. There were they in the midst of their charms for him making such a hellish noise, as it distempered us that were well; and therefore unlike to ease him that was sick. About him were six or eight women, who chafed his arms, legs, and thighs, to keep heat in him."

Winslow made his presence known to him, and told him he had come to see if he could not restore him to health, and asked permission to administer to him some medicine.

"Which he desired. And having a confection of many comfortable conserves &c; on the point of my knife I gave him some; which I could scarce get through his teeth. When it was dissolved in his mouth, he swallowed the juice of it whereat those

¹³ Good News from New England, by E. Winslow.

that were about him much rejoiced; saying, He had not swallowed anything in two days before. Then I desired to see his mouth, which was exceedingly furred; and his tongue swelled in such a manner, as it was not possible for him to eat such meat as they had, his passage [œsophagus] being stopped up. Then I washed his mouth, and scraped his tongue; and got abundance of corruption out of the same. After which I gave him some more of the confection; which he swallowed with more readiness. Then he desiring to drink; I dissolved some of it in water and gave him thereof. Within half an hour, this wrought a great alteration in him, in the eyes of all that beheld him. Presently after, his sight began to come to him; which gave him and us good encouragement. In the mean time, I inquired, how he slept; and when he went to stool? They said, he slept not in two days before; and had not had a stool in five. Then I gave him more; and told him of a mishap we had, by the way, in breaking a bottle of drink; which the Governor also sent him; saying, If he would send any of his men to Patuxet, I would send for more of the same; also for chickens to make him broth; and for other things which I knew were good for him; and would stay the return of the messenger if he desired."

This pleased old Massasoit immensely, and messengers were immediately despatched to bring "such physic as the Surgeon durst administer to him."

Winslow made the sick man a broth which strengthened him greatly, and the next day, feeling himself so much improved, Massasoit got Winslow to go "amongst those that were sick in the town; requesting me to wash their mouths also, and give to each of them some of the same I gave him; saying, They were good folk. This pains I took with willingness; though it were much offensive to me, not being accustomed with such poisonous savours."

Massasoit, being a self-willed old individual, disobeyed some of Winslow's instructions in the matter of diet and gorged himself on a very rich broth, as a consequence of which indiscretion he suffered a relapse. However, Winslow managed to pull him through, chiefly by judi-

ciously refraining from giving him either medicine or food.

This cure had a most beneficial effect on the fortunes of the little group of Englishmen at Plymouth, because Massasoit was so filled with gratitude at his recovery that he revealed to Winslow the existence of a conspiracy among the Indians to massacre the English.

Giles Firmin,¹⁴ who had been an apothecary in Sudbury, England, and afterwards was one of the deacons of Boston church, was held in high esteem as a physician. His son, Giles Firmin, Jr., came to Massachusetts in 1632. He is sometimes referred to as the first person who taught medicine in this country, but we have seen (*supra*) that Lambert Wilson had been engaged for this purpose at an earlier date. He had received his education at Cambridge, which was the hotbed of Puritanism in England. He practised medicine in this country in Ipswich. He subsequently studied divinity and became a clergyman in England.

Eliot, the missionary to the Indians, on September 24, 1647, wrote to Mr. Shephard, a minister at Cambridge, as follows:

"Our young Students in Physick may be trained up better than yet they bee, who have onely theoreticall knowledge, and are forced to fall to practise before ever they saw an Anatomy made, or duely trained up in making experiments, for we never had but one Anatomy in the Countrey, which Mr. Giles Firmin (now in England) did make and read upon very well, but no more of that now."¹⁵

A skeleton was formerly called an anatomy, hence it would appear that demonstrations of the bones were made by Firmin.

¹⁴ Thacher makes the error, probably typographical, of calling him Firmer.

¹⁵ Massachusetts Historical Society Collections, third series, vol. iv. p. 57.

On October 27, 1647, the General Court Records state,—

"We conceive it very necessary yt such as studies physick, or chirurgery may have liberty to reade anotomy & to anotomize once in foure yeares some malefactor in case there be such as the Courte shall alow of."

William Gager, of Boston, is spoken of by Governor Winthrop¹⁶ as "a right godly man, skillful chirurgeon, and one of the deacons of the congregation." He died, greatly lamented, in September, 1630.

Of Samuel Bellingham and Henry Saltonstall, who both graduated at the first Harvard commencement in 1642, and afterwards got their medical diplomas in Europe, it is said, "both were reputed learned and skilful physicians." There was a physician named Henry Greenland at Newberry, Massachusetts, from 1662 to 1675. He was born in 1628.

In a letter of William Leete to John Winthrop, Jr., he says,¹⁷—

"Mr. Eliot himself is under Mr. Greenland's mercuriall administrations, with some encouragement in its operations, yet the issue is all with God."

In 1637 a Dr. John Fisk settled at Salem as a clergyman, and combined the practice of medicine with his religious ministrations.

John Glover was one of the chief men of Dorchester, a deputy to the General Court, and finally one of the assistants to the governor of the colony of Massachusetts. He is spoken of as "a man strong for the truth, a plain,

¹⁶ History of New England.

¹⁷ Massachusetts Historical Society Collections, fourth series, vol. vii.

sincere godly man, and of good abilities.”¹⁸ In 1650 he went to Scotland and received the degree of M.D. from the University of Aberdeen.

Charles Chauncy was born in England in 1589. He studied divinity and medicine at Cambridge, and from that University received the degree of M.D. He was chosen professor of Hebrew at Cambridge, but voluntarily declined the position. He became a clergyman at Ware in England, where he incurred the displeasure of Archbishop Laud by his puritanical proclivities. He gave up his parish and emigrated to America in 1638. In 1654 he was made president of Harvard College, which had been founded in the year that he came to this country. This position he held, performing its duties with universal approbation, until 1671, when he resigned. He died the same year, aged eighty-three years. He is constantly spoken of as being an eminent physician, though no details of his work in that capacity have descended to us. He is said to have held the opinion that there should be no distinction between physic and divinity.¹⁹ He had six sons, all of whom studied medicine, several of them, however, returned to England to practise.

Dr. Charles Chauncy's successor as president of Harvard College was Dr. Leonard Hoar, who graduated from Harvard College, receiving the degree of B.A. in 1650. He then went to England and studied medicine at Cambridge University. He was made president of Harvard in 1672. “The students were too much indulged in their prejudices against him, and he was obliged to resign, March 16, 1674-75.”²⁰

¹⁸ Johnson, quoted by Savage in his edition of John Winthrop's *History of New England*.

¹⁹ *New England Biographical Dictionary*.

²⁰ Hutchinson's *History of Massachusetts*. Foot-note on p. 174.

Matthew Fuller, probably related to Dr. Samuel Fuller before mentioned, was settled first at Plymouth in 1640, but removed to Barnstable in 1652, and died there in 1678. In 1673 he was appointed surgeon-general of the provincial forces raised by Plymouth. In the inventory of his estate occurs the following item: "Surgeon's chest and drugs, £16.0.0. Library, £10.0.0."

Thomas Starr, who lived in Yarmouth from 1640 to 1670, is called chirurgeon many times in the town records. Comfort Starr first practised surgery in Newton, afterwards Duxbury, and then in Boston, where he died in 1663.

Samuel Seabury practised surgery in Duxbury, where he died in 1680. The inventory of his estate included "Nicholas Culpepper's Practice of Physic, £1.4.0.; Physician's Practice, 1s.; Latin Herbal, £1.10.0.; Art of Distillation, by John French, 2s.; Surgeon's Instruments, 12s.; Antimonial Cup, 5s."

Thomas Little, born in Marshfield, Plymouth County, graduated from Harvard in 1695, settled at Plymouth as a physician about 1700, and died there in 1712, aged thirty-eight years. He was also a merchant and held several civil offices. He left a surgeon's chest valued at £17.10.0. His son, Thomas Little, Jr., practised medicine in Chilward in 1726.²¹

Winthrop mentions Thomas Oliver as a physician of skill and experience. He was an elder of the Boston church, and is mentioned as a surgeon in 1644. According to Toner,²² the first physician of Baintree (now Quincy), Massachusetts, was Dr. John Wilson, who died

²¹ My information as to Fuller, Starr, Seabury, and Little is derived from Thacher.

²² Contributions to Medical Progress.

there in 1627. There was another John Wilson, the son of the Rev. John Wilson, pastor of the first church built in Boston, who was born in 1621, and graduated from Harvard at its first commencement in 1642. He became a minister at Medfield, and lived there as "pastor, school-master, and physician" until his death, August 29, 1691.

One New England clergyman who was likewise a practitioner of medicine, Michael Wigglesworth, has left us a poetical *résumé* of the illness prevalent in the sickly season of 1662.²³ I have transcribed this effusion as giving an original picture of the way a season of pestilence impressed a puritanical mind, trained to a spiritual as well as a strictly professional view of the cases he was called upon to treat:

"Our healthful dayes are at an end,
And sicknesses come on
From yeer to yeer, becaus ovr hearts
Away from God are gone—
New England, where for many yeers
You scarcely heard a cough,
And where Physicians had no work,
Now finds them work enough.

"Now colds and coughs, Rheums and sorethroats,
Do more & more abound;
Now Agues sore & Feavers strong
In every place are found.
How many houses have we seen
Last Autumn, and this spring,
Wherein the heathful were too few
To help the languishing.

²³ God's Controversy with New England. Written in the time of the great drought, Anno 1662. By a Lover of New England's Prosperity. Proceedings of the Massachusetts Historical Society, 1871-73.

"One wave another followeth,
And one disease begins
Before another ceases, becaus
We turn not from our sins—
We stopp our ear against reproof,
And hearken not to God;
God stops his ear against our prayer,
And takes not off his rod."

It would appear, however, that as late as 1646 there must have been a great dearth of medical learning in the town of Boston, from the following curious account which Winthrop²⁴ gives of the first appearance of syphilis in the colonies:

"There fell out a loathsome disease at Boston, which raised a scandal upon the town and country, though without just cause. One of the town —, having gone cooper in a ship into —, at his return his wife was infected with Lues Venerea, which appeared thus; being delivered of a child and nothing then appearing, but the midwife a skilful woman, finding the body sound as any other, after her delivery she had a sore breast, whereupon divers neighbors resorting to her, some of them drew her breast, and others suffered their children to draw her, and others let the child suck them, (no such disease being suspected by any,) by occasion whereof about sixteen persons, men, women, and children, were infected, whereby it came at length to be discovered by such in the town as had skill in physic and surgery, but there was not any in the country who had been practised in that cure. But (see the good providence of God) at that very season there came by accident a young surgeon out of the West Indies, who had had experience of the right way of the cure of that disease. He took them in hand and through the Lord's blessing recovered them all in a short time. And it was observed that though many did eat and drink and lodge in bed with those who were infected and had sores, etc., yet none took it of them but by copulation or sucking. It was very doubtful how this disease came at first. The magistrate examined the husband and wife, but could find no dishonesty in either, nor any probable occasion how they should take it by any other, (and the husband was found free of it). So as it was concluded by some, that

²⁴ History of New England.

the woman was infected by the mixture of many spirits of men and women as drew her breast, (for thence it began). But this is a question to be decided by physicians."

The Puritans placed much faith in the efficacy of prayer to relieve their physical as well as moral ills, and I quote two anecdotes from Winthrop²⁵ which will serve to show that they believed their prayers to have been directly answered.

In the year 1644 "One of the deacons of Boston Church, Jacob Elliott, (a man of very sincere heart, and an humble frame of spirit) had a daughter of eight years of age, who being playing with other children about a cart, the hinder end thereof fell upon the child's head and drove a piece of the skull before it into the brain, so as the brains came out, and seven surgeons, (some of the country, very experienced men, and others of the ships which rode in the harbour) being called together for advice, etc., did all conclude that it was the brains (being about half a spoonful at one time and more at other times,) and there was no hope of the child's life, except the piece of skull could be drawn out. But one of the ruling elders of the Church an experienced and skilful surgeon, liked not to take that course but applied only plasters to it, and withal earnest prayers were made by the Church to the Lord for it, and in six weeks time it pleased God that the piece of skull consumed, and so came forth, and the child recovered perfectly, nor did it lose the senses at any time."

The second story is as follows:

"One Bumstead, a member of the church, had a child of about the same age (as the one above mentioned), that fell from a gallery in the meeting-house about 18 feet high, and broke the arm and shoulder, (and was also committed to the Lord in the prayers of the church, with earnest desires that the place where his people assembled to his worship might not be defiled with blood,) and it pleased the Lord also, that this child was soon perfectly recovered."

Judge Sewall, in his Diary, records a case in which prayer seems to have been unduly exciting to the sick man.

²⁵ Loc. cit.

It seems it was customary, when the patient was deemed to be ill past recovery, for his friends to gather and make long prayers at his bedside. The judge, it would appear, rather enjoyed such occasions, and lost no opportunity to be present and lend the aid of his prayers to the unfortunate sick man. On September 20, 1690, he writes,—

“Mr. Moody and I went before the others came to neighbour Hurd who lay dying, where also Mr. Allen came in. Nurse Hurd told her Husband who was there and what he had to say; whether he desired them to pray with him; He said with some earnestness, Hold your tongue, which was repeated three times to his wives repeated entreaties; once he said Let me alone or Be quiet (whether that made a fourth or was one of the three do not remember) and My Spirits are gon. At last Mr. Moody took him up pretty roundly and told him he might with some labour have given a pertinent answer. When we were ready to come away Mr. Moody bid him put forth a little Breath to ask prayer, and said it was the last time he had to speak to him; At last ask'd him, do you desire prayer, shall I pray with you. He answered, Ay for God's sake and thank'd Mr. Moody when he had done. His former carriage was very startling and amazing to us. About one at night he died. About 11 o'clock I supposed to hear neighbour Mason at prayer with him just as my wife and I were going to bed.”

The judge dabbled a good deal in medicine, and writes, in his famous Diary, very entertainingly of some of his experiences. He strongly advocated prayer at the bedside of the sufferer, as he quaintly expresses it, “to give him a lift Heavenwards.”

Possibly some might question the therapeutic benefit of a dying man receiving “a lift Heavenwards.”

He tells us of a Mr. Brattle he visited, and who informed the judge that his visits were not welcome: “He plainly told me that frequent visits were prejudicial to him, it provoked him to speak more than his strength would bear, would have me come seldom.”

In times of much sickness or when an epidemic prevailed days were frequently set aside for fasting and

prayer.²⁶ The earliest fast-day held for deliverance from sickness was kept in Massachusetts July 3, 1644. The record simply states that "there was much sickness in the land," but does not specify the nature of the disease, or diseases, from which the people were suffering.

Winthrop²⁷ refers to the unhealthfulness of the spring of 1646, and says there was a malignant fever prevalent, "whereof some died in five or six days, but if they escaped the eighth they recovered, and divers of the churches sought the Lord by public humiliation, and the Lord was entreated, so as about the middle of the third month it ceased."

On June 11 the cessation of this sickness was recognized by a thanksgiving for this "Mercy of God in withdrawing his afflicting hand."

In 1647 the Barnstable church held a fast on July 22, because there was "sickness upon every family and everyone in every family."

In 1649 the people of Plymouth fasted on November 15, because there was an epidemic among the children of "chin-cough & the pockes." Love says there were several other fasts because of this epidemic, and that there was a day of thanksgiving for the cessation of it on March 13, 1650.

On November 10, 1658, Massachusetts held a fast because of sickness, and Connecticut held one for the same reason on September 8 of that year.

In 1661 Connecticut again was holding fast-days because of an epidemic, and Massachusetts did the same in 1662.

²⁶ For information on this subject see "The Fast and Thanksgiving Days of New England," by W. DeLoss Love, which is a most exhaustive and interesting work on the subject.

²⁷ History of New England.

In 1666 most of the New England settlements held fasts because of their affliction with the smallpox. In 1663 a public fast for relief from smallpox was held in New York.

Love²⁸ mentions that on March 13, 1658, the Dutch in New Netherlands held a public fast by proclamation because of "fevers in some hamlets" and "a new and never heard of heresie named Quakers." He says that the sickness continued, and in consequence fasts were held on October 23, 1658, on April 2 and October 15, 1659, and on March 24, 1660.

In 1677 and 1678 there were fasts held in the New England colonies for relief from smallpox.

Love²⁹ says that on July 10, 1690, a public fast was ordered by the General Court of Massachusetts "in regard of ye troubles yt weer upon us and ye wars with French & Indians and ye sicknes yt weer amongst us as ye feaver and small-pox."

During the seventeenth century we find practically no facts of medical interest in the history of New Hampshire. For medical learning she seems to have relied largely upon her sister colonies, though doubtless there were medical practitioners within her borders. Connecticut, as has been mentioned, had a man of great medical fame as her first governor, John Winthrop, Jr. While serving as the colony's agent in London he took an active interest in the founding of the Royal Society, and in the New England colonies he was in constant demand for his medical skill. His death occurred in 1661 at a ripe old age. Phineas Fiske was born in Milford, Connecticut, but in adult life practised medicine at Had-

²⁸ Fast and Thanksgiving Days in New England.

²⁹ Loc. cit.

dam until his death in 1738, at the age of eighty-five years. He graduated from Yale in 1704, and was a clergyman as well as a physician. Fiske was especially esteemed for his success in the treatment of epilepsy and insanity. His son-in-law, Dr. Moses Bartlett, was a distinguished physician of Portland, Connecticut, where he practised for over thirty years previous to his death in 1766. He was also a clergyman, having studied both theology and medicine under his father-in-law. Rhode Island is entitled to a pre-eminent position out of all relation to its size in early medical annals. One of its founders was Dr. John Clark, a London physician, who had originally settled in Boston but had been banished with Roger Williams. He was pastor of the first church organized in Rhode Island in 1644, and also held the position of assistant treasurer of the colony. He died at Newport in 1676, aged sixty-seven years. The name of Bowen was long famous in medical affairs in Rhode Island. The first of the name was Richard Bowen, who came to the colony in 1640. He numbered among his descendants Drs. Ephraim, William, and Pardon Bowen.

In the year 1633 the General Court licensed Captain John Cranston "to administer physicke and practice chirurgerie," they added, "and is by this Court styled doctor of physick and chirurgery by the Authority of this the General Assembly of this Colony."³⁰ Toner is inclined to consider this as possibly the first medical degree conferred in this country, but it can hardly be looked upon as more than a license to practise.

Another medical man of note was a Frenchman, Pierre Ayrault, who came to Rhode Island in 1686.

³⁰ Toner, *Annals of Medical Progress*.

Jabez Brown practised medicine at Providence in 1700.

The colony of New York was early supplied with competent medical men, and some of them occupied prominent positions in public life as well as in their professional capacity.

When Director-General William Kieft of the West India Company landed in March, 1638, he brought with him Gerritt Schult and Hans Kierstedt, both of whom were surgeons. Kierstedt married Sarah, the daughter of the celebrated midwife Annetje Jansen.

The names of William Hays, Peter Vreucht, Jacob Hendrickson Varvanger, Isaac Jansen, Jacob Malenancy, and John Pau have descended to us as practising medicine in New York during the years from 1647 to 1652.

Johannes La Montague, a Huguenot, was held in much repute as a physician. He was likewise a member of the governor's Council. He came to New York in 1637, and in 1641 he was a member of the expedition sent to defend Fort Good Hope.

Samuel Megapolensis was prominent politically as well as medically. He graduated from Harvard College and afterwards from the University of Utrecht, receiving from the latter both a theological and a medical degree. He became pastor of a church in New York. In 1664 he was one of the Dutch commissioners who negotiated the treaty with the English which resulted in New Amsterdam becoming New York.

Dr. Abraham Staats, an emigrant from Holland, settled at Fort Orange and soon became very eminent. He was concerned in making treaties with the Indians. In 1664 his house at Claverack was burned by the latter and his wife and two sons perished in the conflagration. He left a son named Samuel, who studied medicine in Hol-

land, and practised with much success in New York, where he died in 1715.

In 1660 Jacob D. Commor was prominent as a surgeon in New York, from whence he later removed to the Swedish settlement of New Castle on the Delaware.

About the year 1661 Jan du Parch and Dr. J. Hughes practised medicine in New York, but no further information concerning them is available. Alexander D. Curtis not only practised medicine in the colony but also taught a Latin school. He left the colony when it was surrendered to the English.

Gysbert van Imbroeck and Gerardus Beekman were two physicians in the colony who occupied many places of public trust in the latter part of the seventeenth century.

Toner mentions one Giles Geodinean, a French Huguenot, who received letters of denization in New York in 1686, and styled himself "chirurgi-physician."

In 1666 the resident surgeon to Fort Albany was a Frenchman named De Huise; in 1689 a Scotchman, Dr. Lockhart, held the position.

The honor of performing the first autopsy in this country was mistakenly assigned by Dr. Toner to Johannes Kerfbyle, who had received his medical degree from the University of Leyden, and subsequently settled in New York, where he had acquired a very large practice. In 1690 Governor Slaughter died under circumstances suggesting the possibility that he had been poisoned, and Dr. Kerfbyle was one of the physicians appointed by the Council to open the body and ascertain the cause of death. There are, however, records of four other autopsies which were held at an earlier date than the one on Governor Slaughter.

Pennsylvania was settled so late in the seventeenth

century that we find but little of historical value in the medical annals of the colony until the next century was getting well along in its first quarter. There is a letter extant from Charles Gordon in New Jersey to Dr. John Gordon, of Montrose, which is given by Henry.³¹ It was written in 1685, and its remarks are held to apply to Philadelphia as well as to the colony on the other side of the Delaware. He says,—

“If you desire to come hither yourself you may come as a Planter or Merchant, but as a Doctor of Medicine I cannot advise you; for I hear of no disease here to cure but some Agues, and cutted legs and fingers, and there is no want of empirics for these already; I confess you could do more than any yet in America, being versed both in chirurgery and Pharmacie, for here are abundance of curious herbs, shrubs and trees, and no doubt medicinal ones for making of drugs, but there is little or no employment in this way.”

Gabriel Thomas in his famous Diary, when writing of Pennsylvania, remarks, “Of lawyers and doctors I shall say nothing, because the country is peacable and healthy.” Notwithstanding this fact there was a small number of physicians among the early settlers, most of whom were Welsh. Two of them, Thomas Wynne and Thomas Lloyd, entered public life upon their arrival in the colony, and probably did not practise to any extent. Watson³² says that Wynne had practised medicine with high reputation in London, and that when he came to this country his brother, who was also a physician, came with him. I can find no further mention of the latter. Thomas was elected Speaker of the First Provincial Assembly. He died in 1691. His son-in-law, Dr. Edward Jones, was a very distinguished physician, and also a member

³¹ History of Medicine in Philadelphia, p. 22, also quoted by Norris.

³² Annals of Philadelphia, vol. ii. p. 375.

of the Provincial Assembly. His son, Evan Jones, and his grandson, John Jones, were famous for their medical skill in subsequent years.

Thomas Lloyd had been a student at Oxford. He became first deputy governor of Pennsylvania.

The first man of real eminence as a physician in Pennsylvania was Griffith Owen, a Welshman, who came over on the "Welcome" with William Penn. He was eminent in the councils of the Friends, but Norris³³ quotes Proud as saying that his practice as a physician, "in which he was very knowing and eminent, rendered him of still greater value and importance in the place where he lived." Norris also quotes the oft-repeated history of the first known amputation performed in Pennsylvania as told in the Journal of Thomas Story. The injury requiring it was received by a young man during the firing of a salute in honor of William Penn's second visit to his colony. The victim's arm being so badly injured that amputation was "resolv'd upon by Dr. Griffith Owen (a Friend), the Surgeon, and some other skillful persons present, which accordingly was done without delay. But as the arm was cut off, some Spirits in the Bason happened to take Fire, and being spilt upon the Surgeon's Aprin, set his Cloaths on fire; and there being a great crowd of Spectators, some of them in the Way, and in Danger of being scalded, as the Surgeon himself was upon the Hands and Face; but running into the street the Fire was quenched; and so quick was he that the patient lost not very much Blood, though left in the open bleeding Condition."

Norris quotes from a letter of William Penn's in which he speaks of him as "tender Griffith Owen, who both sees

³³ Early History of Medicine in Philadelphia, p. 11.

and feels." He died in 1717, aged seventy years. He left a son, Dr. Griffith Owen, Jr., who died at an early age in 1731.

There is no further mention of any physician of prominence in Pennsylvania until the arrival of Dr. John Kearsley in 1711.

There are only four names of medical men connected with the history of New Jersey in the seventeenth century which have descended to us,—Abraham Pierson, Jonathan Dickinson, William Turner, and Daniel Cox. From Toner³⁴ I take the following facts concerning them:

Abraham Pierson was a clergyman as well as a physician. He was a native of Yorkshire, and after graduating at Cambridge, in 1632, he emigrated to America, arriving at Boston in 1639. From Boston he went to Southampton, Rhode Island, and subsequently, in 1667, to Newark, New Jersey, where he died in 1678.

Jonathan Dickinson was a native of Hatfield, Massachusetts. He likewise was a clergyman as well as a physician, and became the first president of Princeton College and the first pastor of the Presbyterian Church at Elizabeth, New Jersey. He died in 1747.

William Turner studied medicine with a Frenchman named Pinqueron in Newport, Rhode Island, in 1690, and then removed to Newark, New Jersey, where he practised medicine until his death, which occurred subsequently to 1750.

Daniel Cox was a physician in London, England, but Toner doubts whether he ever practised his profession in this country. In 1690 he purchased the greater part of West Jersey and was appointed governor of his grant.

³⁴ Annals of Medical Progress.

He appointed a deputy governor rather than relinquish his professional business, and eventually sold his grant to Sir Thomas Lane.

Besides those surgeons who occupied official positions in relation to the early settlers of Virginia, but few names of medical men practising in that colony have descended to us. Toner mentions a Dr. Green, who practised in Gloucester County, Virginia, where he died in 1767. Thacher gives an interesting account of Dr. John Mitchell, who came to Virginia about the year 1700. He was a native of England, who after his arrival in this country settled in Urbanna, a small town on the Rapahannock. He had a large practice, but his chief fame is based on his botanical work and on his "Essay on the Causes of the Different Colors of People of Different Climates," which was published in 1743. He also wrote a paper on yellow fever as it appeared in Virginia in the epidemics of 1737, 1741, and 1742. Subsequently this paper fell into the hands of Benjamin Franklin, who communicated it to Dr. Rush, and the latter acknowledged his indebtedness to it for information enabling him to detect and combat the yellow fever epidemic of 1793 in Philadelphia.

The Midwife.

The midwife occupied a most important post in the community in the early settlements of this country. It was deemed beneath the dignity of male physicians to act as obstetricians, consequently the women monopolized the practice. In those days families averaged much larger numbers of children than is the present rule. Tyler³⁵ says, "The typical household of New England

³⁵ History of American Literature, vol. i. p. 95.

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was one of patriarchal populousness," and in a foot-note he submits some examples,—that of Roger Clap, of Dorchester, who had fourteen children, among whom were Experience, Waitstill, Preserved, Hopestill, Wait, Thanks, Desire, Unite, Supply; of Cotton Mather, who had fifteen; of Benjamin Franklin's father, who had seventeen, and Sir William Phipps, who was one of twenty-six children of the same father and mother.

Marriage seemed to be looked upon with peculiar favor by the Puritans, for as soon as a man lost his wife, or a woman her husband, he or she hastened to replace the loss by wedding again.

Lodge³⁶ says that early marriages were popular, and women in consequence became "old maids" unless married young. He says, "marriages took place usually at a very early period of life, many girls becoming wives at sixteen or seventeen." John Dunton speaks of a Miss Wilkins, an old maid of twenty-six, looked on in Boston as a "desired spectacle," and John Higginson writes of some young ladies that they "are like to continue ancient maids, Sarah being twenty-five or twenty-six years old."

The names of several famous midwives of the Massachusetts Bay settlements have come down to us.

I have mentioned that the wife of Deacon Samuel Fuller was wont to officiate in this capacity.

Green³⁷ quotes the following extract from the records of the town of Rehoboth, Massachusetts, on July 3, 1663: "Voted and agreed that . . . Mrs. Bridget Fuller, of Plymouth should be sent to, to see if she be willing to come and dwell among us, to attend on the

³⁶ History of the English Colonies in America, p. 463.

³⁷ History of Medicine in Massachusetts, p. 54.

† office of a midwife, to answer the town's necessity, which at present is great." This invitation was extended to her after her husband's death. She did not accept it, as she died, at Plymouth, the next year.

The most famous of all the ancient midwives, made notorious by the misfortunes she suffered, was Anne Hutchinson. She and her husband came to Boston from England in 1634. One of her bitterest enemies, the Rev. Thomas Weld, describes her²⁸ as "of a haughty and fierce carriage, of a nimble wit and active spirit, and a very voluble tongue, more bold than a man, though in understanding and judgement inferior to many women." She was thirty-four years of age when she settled in Boston, and she was only suffered to remain in the town for four years before she was banished. She held very peculiar religious tenets, not at all suited to the minds of the narrow-minded bigots who then ruled Boston. She held weekly religious meetings in her house, at which she would preach and pray. As Adams points out, the religious excitement at these meetings used to wax high, and soon her work assumed the nature of what would now be known as a revival. The woman seems to have finally lost her head, and claimed to have had direct inspirations from heaven. Worst of all, she finally proceeded to controvert and combat some of the views held by the various Puritan preachers of Boston. She was summoned before the General Court of Massachusetts, and after a trial, which was a mere parody of justice, and throughout which the poor woman was browbeaten and bullied in every conceivable way, was excommunicated and banished. She went to Rhode Island, where she subsequently was murdered by the Indians.

²⁸ Three Episodes in Massachusetts History, by C. F. Adams.

Winthrop³⁹ narrates two circumstances of her career which possess interest for us. The first is concerning a monstrosity which was given birth to by Mary Dyer, a great friend of Anne Hutchinson's. The latter was the only person present at the delivery except the midwife, and the event was subsequently referred to in her trial.

"The wife of one William Dyer, a milliner in the New Exchange, a very proper and fair woman, and both of them notoriously affected with Mrs. Hutchinson's errors, and very censorious and troublesome, (she being of a very proud spirit and much addicted to revelations,) had been delivered of a child some few months before, October 17, (1637) and the child buried, (being stillborn) and viewed of none but Mrs. Hutchinson and the midwife, one Hawkin's wife, a rank famulist also; and another woman had a glimpse of it, who not being able to keep counsel, as the other two did, some rumour began to spread that the child was a monster. One of the elders hearing of it, asked Mrs. Hutchinson, when she was ready to depart, where upon she told him how it was, and said she meant to have it chronicled, but excused her concealing of it till then, (by advice, as she said of Mr. Cotton) which coming to the Governor's knowledge, he called another of the magistrates and that elder, and sent for the midwife and examined her about it. At first she confessed only, that the head was defective and misplaced, but being told that Mrs. Hutchinson had revealed all, and that he intended to have it taken up and viewed, she made this report of it, viz. It was a woman child, stillborn, about two months before the just time, having life a few hours before; it came hiplings till she turned it, it was of ordinary bigness; it had a face, but no head, and the ears stood upon the shoulders, and were like an apes; it had no forehead but over the eyes four horns, hard and sharp; two of them were above one inch long, the other two shorter; the eyes standing out and the mouth also, the nose hooked upward; all over the breast and back full of sharp pricks and scales, like a thornback; the navel and all the belly, with the distinction of sex, were where the back should be, and the back and hips before, where the belly should have been, behind, between the shoulders, it had two mouths, and in each of them a piece of red flesh sticking out, it had arms and legs as other children; but instead of toes it had on each foot three claws, like a young fowl, with sharp

³⁹ History of New England, vol. i.

talons. The Governor speaking with Mr. Cotton about it, he told him the reason why he had advised them to conceal it. *First*, Because he saw a providence of God in it, that the rest of the women, who were coming and going in the time of her travail, should then be absent. 2. He considered, that, if it had been his own case, he should have desired to have had it concealed, and that he thought God might intend only the instruction of the parents, and such others, to whom it was known, etc. The like apology he made for himself in publick, which was well accepted.

"Jan. 2, 1638.

"The Governor, with advice of some other of the magistrates and elders of Boston caused the said monster to be taken up, and though it were much corrupted, yet most of those things were to be seen, as the horns and claws, the scales, etc. When it died in the Mother's body, (which was about 2 hours before birth) the bed whereon the Mother lay did shake, and withal there was such a noisome savour, as most of the women were taken with extreme vomiting and purging, so as they were forced to depart; and others of them, their children were taken with convulsions, (which they never had before nor after,) and so were sent for home, so as by these occasions, it came to be concealed.

"Another thing observable was, the discovery of it, which was just when Mrs. Hutchinson was cast out of the church. For Mrs. Dyer going forth with her, a stranger asked what young woman it was. The others answered, it was the woman which had the monster; which gave the first occasion to some that heard to speak of it. The midwife, presently after this discovery, went out of the jurisdiction, and indeed it was time for her to be gone, for it was known, that she used to give young women oil of Mandrakes and other stuff to cause conception, and she grew into great suspicion to be a witch, for it was credibly reported, that, when she gave any medicines, (for she practiced physick), she would ask the party if she believed she could help her, etc. Another observable passage was, that the father of this monster, coming home at this very time, was, the next Lord's day, by an unexpected providence, questioned in the church for divers monstrous errors, as for denying all inherent righteousness, etc., which he maintained and was for the same admonished."

Mary Dyer went to Rhode Island with Mrs. Hutchinson, but twenty-one years later returned to Boston, and fell a victim to religious persecution, being executed as a Quaker, on June 1, 1660.

The second circumstance concerning Mrs. Hutchinson, which Winthrop⁴⁰ relates, had to do with her own physical condition. It appears that the poor woman had an hydatid cyst of the uterus, but the governor and his associates were disposed to regard the case entirely from a theological point of view.

"Mrs. Hutchinson, being removed to the Isle of Aquiday, in the Narragansett Bay, after her time was fulfilled, that she expected deliverance of a child, was delivered of a monstrous birth, which being diversely related in the country, (and in the open assembly at Boston upon a lecture day declared by Mr. Cotton to be 27 several lumps of man's seed, without any alteration or mixture of anything from the woman, and thereupon gathered that it might signify her error in denying inherent righteousness, but that all was Christ in us, and nothing of ours in faith, love, etc.) hereupon the Governor wrote to Mr. Clarke, a physician and preacher to those of the island, to know the certainty thereof, who returned him this answer. Mrs. Hutchinson, six weeks before her delivery, perceived her body to be greatly distempered, and her spirits falling, and in that regard doubtful of life, she sent to me, etc., and not long after (in immoderate fluore uterino) it was brought to light, and I was called to see it, where I beheld, first unwashed, (and afterwards in warm water), several lumps, everyone of them greatly confused, and if you consider each of them according to the representation of the whole, they were altogether without form; but if they were considered in the parts of each lump of flesh, then there was a representation of immeasurable distinct bodies in the form of a globe, not much unlike the swims of some fish, so confusedly knit together by so many several strings, (which I conceive were the beginnings of veins and nerves,) so that it was impossible either to number the small round pieces in every lump, much less to discover from whence every string did fetch its original, they were so snarled one with another. The small globes I likewise opened, and perceived the matter of them (setting aside the membrane in which it was involved) to be partly wind and partly water. Of these several lumps there were about 26, according to the relation of those, who were narrowly searched into the number of them. I took notice of 6 or 7 of some bigness; the rest were small; but all as I have declared, except one or two which differed much

⁴⁰ History of New England, vol. i. p. 271.

from the rest both in matter and form, and the whole was like the [blank] of the liver, being similar and everywhere like itself. When I had opened it the matter seemed to be blood congealed. The Governor, not satisfied with this relation, spake after with the said Mr. Clarke, who thus cleared all the doubts: The lumps were 26 or 27, distinct and not joined together; there came no secundine after them; six of them were as great as his fist; the rest less than other, and the smallest about the bigness of the top of his thumb. The globes were round things included in the lumps, about the bigness of a small Indian bean, and like the pearl in a man's eye. The two lumps, which differed from the rest, were like liver or congealed blood, and had no small globes in them as the rest had. Mr. Cotton, next lecture day, acknowledged his errour, etc., and that he had his information by a letter from her husband, etc."

Jane Hawkins, who delivered Mary Dyer of her monstrosity, was a very well-known midwife, and also used to act as a physician, and had the reputation of being a witch. Thomas Welde⁴¹ says she was "notorious for familiarity with the devil." At the session of the General Court of Massachusetts held in March, 1637-38, the following record appears:

"Jane Hawkins the wife of Richard Hawkins had liberty till the beginning of the third Mo called May, & the magistrates (if shee did not depart before) to dispose of her, & in the meantime shee is not to meddle in surgery, or physick, drinks or oyles, nor to question matters of religion except with the elders for satisfaction."

Later at the session of the General Court, in June, 1641, it was resolved that "Jane Hawkins is enjoined to depart away tomorrow morning, & not to returne againe hither upon paine of a severe whipping, & such other punishment, as the Court shall thinke mete. & her sonnes stand bound in 20 £ to carry her away according to order."

It was fortunate for Jane that she lived before the

⁴¹ A Short Story, etc., 1644.

fearful outbreak against the witches in 1692, as her fate would then have been sealed.

Toner⁴² mentions a well-known midwife of Boston, Ruth Barnaby by name, who pursued her occupation in that town for over forty years. She was born at Marblehead in 1664, and died on the 12th of February, 1765, aged one hundred and one years. When there was an epidemic of smallpox in Boston in 1764, she insisted upon being inoculated, though upward of one hundred years old. She manifested a striking proof of the value of inoculation, as she escaped the disease, although several other members of her family had it.

The practice of midwifery would seem to have been conducive to longevity, as in 1730 there was published at Philadelphia an "Elegy on the Death of the Ancient, Venerable, and Useful Matron and Midwife, Mrs. Mary Broadwell, who rested from her labours Jan. 2, 1730, aged 100 years and one day."

The following epitaph from the Phipps Street burying-ground at Charlestown, Massachusetts, is often quoted for its oddity:

"Here lyes Interred ye Body of
Mrs. Elizabeth Phillips, Wife
to Eleazer Phillips, Who
was Born in Westminster, in Great
Britain. & Commission'd by John
Lord. Bishop of London. in ye Year
1718 to ye Office of a Midwife; & came
to this Country, in ye Year 1719, & by
ye Blessing of God, has brought into
this world above 3000 Children;
Died May 6th 1761. Aged 76 Years."

Some one has scratched a figure 1 before, and a 0 after, the 3000, so that it reads 130,000.

⁴² Contributions to Medical Progress.

Poor Margaret Jones was a doctress of New England who came to a most untimely end, as will be seen from the following narrative written by Governor Winthrop:⁴³

"Year 1648

At this Court one Margaret Jones, of Charlestown, was indicted and found guilty of witchcraft, and hanged for it. The evidence against her was, 1. That she was found to have such a malignant touch, as many persons (men, women, and children), whom she stroked or touched with any affection or displeasure, etc. were taken with deafness, or vomiting, or other violent pains or sickness. 2. She practising physick, and her medicines being such things as (by her own confession) were harmless, as Aniseseed, liquors, etc. yet had extraordinary violent effects. 3. She would use to tell such as would not make use of her physick, that they would never be healed, and accordingly their diseases and hurts continued, with relapses against the ordinary course, and beyond the apprehension of all physicians and surgeons. 4. Some things which she foretold came to pass accordingly; other things she could tell of (as secret speeches etc) which she had no ordinary means to come to the knowledge of. 5. She had (upon search) an apparent teat in her secret parts as fresh as if it had been newly sucked, and after it had been scanned, upon a forced search, that was withered, and another began on the opposite side. 6. In the prison in the clear daylight there was seen in her arms, she sitting on the floor, and her clothes up etc., a little child, which ran from her into another room, and the officer following it, it was vanished. The like child was seen in two other places, to which she had no relation; and one maid that saw it, fell sick upon it, and was cured by the said Margaret, who used means to be employed to that end. Her behaviour at her trial was very intemperate, lying notoriously, railing upon the jury, and witnesses, etc. and in the like distemper she died. The same day and hour she was executed, there was a very great tempest at Connecticut, which blew down many trees, etc."

Sarah, the wife of John Alcock, was also skilled in medicine, as appears from the Roxbury Church Records, which Green⁴⁴ has quoted, for November 27, 1665:

⁴³ History of New England, vol. ii. p. 326.

⁴⁴ History of Medicine in Massachusetts.

"Mrs. Sarah Alcock dyed, a vertous woman, of vnstained life, very skilful in physick & chirurgery, exceeding active yea vnwearied in ministering to ye necessities of others. Her workes praise her in ye gates."

Toner ⁴⁵ quotes a New York City ordinance, passed July 16, 1716, concerning the duties of midwives:

"It is ordained that no woman within this corporation shall exercise the employment of midwife until she have taken oath before the mayor, recorder, or an alderman, (the terms of which are prescribed,) to the following effect: That she will be diligent and ready to help any woman in labor, whether poor or rich; that in time of necessity she will not forsake the poor woman and go to the rich; that she will not cause or suffer any woman to name or put any other father to the child, but only him which is the very true father thereof, indeed, according to the utmost of her power; that she will not suffer any woman to pretend to be delivered of a child who is not indeed, neither to claim any other woman's child for her own; that she will not suffer any woman's child to be murdered or hurt; and as often as she shall see any peril or jeopardy, either in the mother or child, she will call in other midwives for counsel; that she will not administer any medicine to produce miscarriage; that she will not enforce a woman to give more for her services than is right; that she will not collude to keep secret the birth of a child; will be of good behaviour; will not conceal the births of bastards, &c."

Annetje Jansen, sometimes known as Anneke Jan, who owned a large part of the present site of New York City, was a very skilful midwife. She had a daughter Sarah, who married Dr. Hans Kierstedt, who practised medicine in that city from 1638 to 1661.

There are many instances found in the ancient chronicles of juries of women being impanelled to act in certain cases. Thus in Salem, New Jersey, the following record appears in 1732 in an indictment for petty larceny: ⁴⁶

⁴⁵ Loc. cit.

⁴⁶ R. G. Johnson, *An Historical Account of the First Settlement of Salem, in West Jerseys.*

1732. Indictment for Petty Larceny. "Is ordered by the Court that Eliza Crook receive twenty lashes well laid on her bare back, at the common whipping post, and that she stands committed till she pays fees. The said Eliza Crook prays delay of the said whipping because she sayth she is quick with child. And now a jury of matrons were summoned to wit: Susannah Goodwin, Sarah Hunt, Ann Grant, Mary Grey, Eliza Backett, Sarah Test, Elizabeth Hall, Phoebe Saterthwaite, Ann Woodnutt, Eliza Huddy, Eliza Axford, and Sarah Fithian, being duly qualified according to law, do say that Eliza Crook is quick with a living child. On motion of the Attorney General, the said Eliza Crook is committed into the sheriffs custody, till she be delivered of the said child, and then to receive her punishment."

In Judge Sewall's Diary ⁴⁷ for Thursday, February 24, 1680, is the following account of a jury of women in Massachusetts:

"This morn the wife of Mr. Elias Row is found dead in her bed; much blood about her, so some think she was choak'd with it. A Jury was empanelled and 6 grave matrons and a Chirurg[eon] to view the corpse to see if any violence had been offered her; found none; she and her Husband seldom lay together; she was given to drink and quarelling. Her death puts in mind of the Proverb wherein we say such an one hath drunk more than he hath bled today."

The practice of obstetrics by men was regarded with popular disfavor until well after the middle of the eighteenth century in this country.

The first record of a man officiating in the capacity of an obstetrician of which we have information is to be found in the notice of the death on July 22, 1745, of a doctor of New York, whose name was Dupuy:

"Last night, died in the prime of life, to the almost universal regret and sorrow of this city, Mr. John Dupuy, M.D., a man mid-wife, in which last character it may be truly said as David did of Goliath's sword, there is none like him."

⁴⁷ Massachusetts Historical Society Collection, fifth series, vol. vi.

Dr. John Moultrie came to this country and began the practice of medicine in Charleston, South Carolina, in 1733, remaining in practice until 1773, during most of which time he stood at the very head of his profession in that city:

"He was especially distinguished for his skill in obstetrics and his death was regarded as a public calamity, several of the ladies of Charleston bedewed his grave with tears, and went into mourning on the occasion. The year after his decease was distinguished by the deaths of several women in childbirth. While he lived they thought themselves secure of the best assistance in the power of man or of art, in cases of extremity. In losing him they lost their hopes. Depressing fears sunk their spirits, and in an unusual number of cases produced fatal consequences."⁴⁸

In 1754 Dr. James Lloyd settled in Boston, and was probably the first medical man in Massachusetts to devote himself solely to the practice of midwifery.

The first man in New Jersey who made a specialty of obstetric work was Dr. Atwood, who began the exclusive practice of that branch of the medical art in 1762.

Dr. William Shippen was the first physician to give a course of lectures on midwifery in this country, and was the most prominent obstetrician of Philadelphia.

Dr. John V. B. Tennent, of New Jersey, was the first professor of midwifery in the Medical School of New York, and was a distinguished obstetrician of that city.

Green⁴⁹ quotes the following advertisement from *The Boston Evening Post and the General Advertiser* for November 10, 1781:

"The PHYSICIANS
of the Town of BOSTON

Hereby inform the Public, that, in Consideration of the great Fatigue and inevitable Injury to their Constitutions, in the Practice

⁴⁸ Thacher.

⁴⁹ History of Medicine in Massachusetts.

of *Midwifery*, as well as the necessary Interruption of the other Branches of their Profession, they shall, for the future, expect, that in Calls of this kind, the Fee be immediately discharged.

"BOSTON, Nov. 6, 1781."

The Earliest Recorded Autopsies in America.⁵⁰

The earliest mention of an autopsy performed in America is to be found in "An Account of Two Voyages to New England," published at London in 1674 by John Josselyn, an Englishman, who had spent some time in New England. He writes:

"A young maid that was troubled with a sore pricking at her heart, still as she leaned her body or stept down with her foot to the one side or the other; this maid during her distemper voided worms of the length of a finger, all hairy with black heads; it so fell out that the maid dyed; her friends desirous to discover the cause of the distemper of her heart, had her opened, and found two crooked bones growing upon the top of the heart, which as she bowed her body to the right or left side would job their points into one and the same place, till they had worn a hole quite through."

Dr. S. A. Green refers to this case, and mentions several others which he found. Thus, in the records of Roxbury Church, on August 20, 1674, is the following:

"John Bridge, died of ye Winde Collick and was buried the day following. His body was opened. He had sundry small holes in his stomach & bowels, & one hole in his stomach yt a man's fist might passe through, wch is thought was rent wth vyolent straining to vomit the night before he dyed, for the watchers observed yt something seemed to rend wth in him, and he said of it I am a dead man."

⁵⁰ The following account of the autopsies first held in this country appeared in the *Philadelphia Medical Journal* for February 17, 1900, and I am indebted to the *Journal* for permission to republish it.

Green also found in the records of the Essex County Court, on leaf 46 of the thirtieth volume, the accounts of two other autopsies.

On June 1, 1676, an examination was made of the body of Jacob Goodale in the complaint against Giles Corey. The jury's finding was:

"Several wrongs he hath had done on his body, as upon his left arme and upon his right thigh, a great bruise, wch is very much swold. and upon the reign of his backe. in colour. differinge from the other parts of his body we caused an incision to be made much bruised and Run with a gelly and the skin broke upon the outside of each buttocke.

"Sworne to 30; 4(?) mo. 76."

Cotton Mather⁵¹ says of this case:

"That about Seventeen Years ago Giles Cory kept a man in his House, that was almost a Natural Fool; which Man Dy'd suddenly. A Jury was Impannel'd upon him, among whom was Dr. Zorobabel Endicot; who found the man bruised to Death, and having clodders of Blood about his Heart."

The other autopsy was held on May 2, 1678, and the report on the result was made by the "Chirurgion:":

"Search the Body of one called Edward Bodye; I made Incision upon the parte of his Body which was most suspitious which was upon the Temporall Muscle; I layd the Bones Beare; wee could nott find any fracture in the least neither was the flesh in any wise corrupted or putrified."

Judge Sewall, in his Diary, mentions an autopsy performed upon the body of an Indian who had been hung. The post-mortem took place on September 22, 1676.

Thus there are records of at least four autopsies which antedate that performed on the body of Governor Slaughter, which is very generally considered to have been the first of which we have any record.

⁵¹ Wonders of the Invisible World.

CHAPTER II.

EPIDEMIC SICKNESS AND MORTALITY IN NORTH AMERICA
FROM ITS EARLIEST DISCOVERY BY THE ENGLISH TO
THE YEAR 1800.

WHEN one considers the circumstances under which the early immigrants to North America made the passage across the ocean, it seems marvellous that so large a number survived to make the landing. In small, overcrowded ships, without sanitary equipment, with insufficient supplies of food and medicine, and the dreary length of time which was necessarily consumed on the voyage, the heavy mortality rate aboard the ships was not at all to be wondered at.

Governor John Winthrop left his wife in England when he came to America, and his letters to her contained much sage advice as to what she should do when she made the voyage to join him. July 23, 1630, he writes, after giving her much counsel as to provisions for the voyage, bedding, clothing, etc., "& for the physick you shall need no other, but a pound of Doctor Wrights' Electuaria lenitivii, & his direction to use it, a gallon of scurvy grease to drinke a little 5; or 6; morninges together, wth some saltpeter dissolved in it, & a little grated or sliced nutmege." Writing March 28, 1631, he says, "Remember to bringe juice of lemons to sea with thee, for thee and thy company to eate wth yor meate as sauce."

On November 29, 1630, he writes her of the many deaths which have occurred in the little settlement: "We conceive that this disease grew from ill diet at sea, &

proved infectious. I write this not to discourage thee, but to warne thee & others to provide well for the sea & by Gods helpe the passage will be safe & easy how longe so ever."

John Josselyn¹ advises voyagers to carry "juice of Lemons well put up to cure, or prevent the scurvy," and "to prevent or take away Sea sickness, Conserve of Wormwood is very proper, but these following Troches I prefer before it. First make paste of Sugar and Gum-Dracagant [Tragacanth] mixed together, then mix therewith a reasonable quantitie of the powder of Cinamon and Ginger, and if you please a little Musk also, and make it up into Roules of several fashions, which you may gild, of this when you are troubled in your Stomach, take and eat a quantity according to discretion."

One of the most disastrous attempts to take out a colony to the New World was that made by Francis Blackwell, one of the leading Puritans in Amsterdam. Blackwell with his fellow-emigrants sailed for Virginia in 1618. There were one hundred and eighty of them crowded into a very small vessel. Disease broke out among them and proved fatal to Blackwell and the captain of the ship. By the time Virginia was reached one hundred and thirty deaths had occurred on the vessel. This fearful result of the earliest attempt made by the Puritans to reach New England in their search for religious liberty seems to have discouraged all efforts at subsequent attempts for some time, but does not seem to have been fruitful of much result as an object-lesson how to avoid similar disasters.

¹ An Account of Two Voyages to New England, by John Josselyn, Gent. London 1674. Reprinted in Massachusetts Historical Society Collections, third series, vol. iii.

Coming down to a later period, in 1682, the ship which brought William Penn to this country lost thirty of its company by smallpox on the voyage. The account left us by the Rev. Francis Higginson of his voyage to this country stands out in pleasing contrast to almost all of the narratives left by his contemporaries. The vessel was the "Lion's Whelp," and was apparently a stanch and seaworthy ship, for he says the passage was "short and speedy," lasting "6 weeks and 3 days." He places this as among the remarkable things of their passage, and among others in the same category,—

"Thirdly, our passage was also healthfull to our passengers, being freed from the great contagion of the scurvie and other maledictions, which in other passages to other places had taken away the lives of many. And yet we were in all reason in wonderful danger all the way, our ship being greatly crowded with passengers; but through God's great goodness we had none that died of the pockes but that wicked fellow that scorned at fasting and prayer. There was indeed two little children, one of my owne and another beside; but I do not impute it meerely to the passage; for they were both very sickly children, and not likely to have lived long, if they had not gone to sea. And take this for a rule, if children be healthfull when they come to sea, the younger they are the better they will endure the sea, and are not troubled with seasickness as older people are, as we had experience in many children who went this voyage. My Wiffe indeed, in tossing weather, was something ill by vomiting, but in calme weather she recovered agayne, and is now much better for the sea sickness. And for my owne part, whereas I have for divers yeares past been very sickly and ready to cast up whatsoever I have eaten, and was very sicke at London and Gravesend, yet from the tyme I came on shipboard to this day, I have been straungely healthfull. And now I can digest our ship diett very well, which I could not when I was at land. And indeed in this regard I have great cause to give God praise, that he hath made my coming to be a method to cure me of a wonderful weak stomacke and continual payne of melancholly wynd from the splene: Also divers children were sicke of the small pockes, but are safely recovered agayne, and 2 or 3 passengers towards the latter end of the voyage fell sicke of the scurvie, but coming to land recovered in a short time."

After surviving the perils and discomforts of the voyage and arriving in their new country the early settlements were so frequently, and so terribly, visited by outbreaks of sickness that we find contemporary correspondence and books filled with interesting matter dealing with facts of medical interest. These sufferings were attributable largely to the weakened condition in which the people landed, partly to the difficulty in procuring suitable and sufficient food, partly to unwonted climatic conditions, and lastly to overcrowding and other unsanitary conditions in the first dwelling-places they erected.

The first settlement established by the English in North America was that of Jamestown in Virginia. The landing was made April 26, 1607, after a voyage begun December 20, 1606. These colonists landed at a most favorable season of the year, when the country was in the first flush of spring, and were fairly well provided with physical necessities and comforts before the setting in of their first winter. They praised the healthfulness of the country. William Strachey, who was secretary and recorder of the colony,² writes in praise of the healthfulness of the climate:

"The temperature of this country doth well agree with the English constitutions, being sometymes seasoned in the same, which hath appeared unto us by this that albeyt, by many occasions, ill-lodging at the first (the poorer on the bare ground and the best in such miserable cottages at the best, as through which the fervent piercing heat of the sun, which there (it is true) is the first cause creating such sommer fevers amongst them, found never resistance) hard fare, and their owne judgments and saffeties instructing them to worke hard in the faint tyme of sommer, (the better to be accomodated and fitted for the wynter,) they have fallen sick, yet have they recovered agayne, by very small meanes,

² Hart's American History told by Contemporaries, vol. i. p. 202.

without helpe of fresh diet, or comfort of wholesome physique, there being at the first but few physique helpes, or skilfull surgeons, who knew how to apply the right medicine in a new country, or to search the quality and constitution of the patient, and his distemper, or that knew how to counsell, when to lett blood, or not, or in necessity to use a launce in that office at all."

On the other hand, George Percy, a brother of the Earl of Northumberland, was one of the first settlers at Jamestown, and he has left us a very different account of the way things went in Virginia during the first summer of the settlement.³

"Our men were destroyed with cruel diseases, as swellings, fluxes, burning fevers, and by wars, and some departed suddenly. But for the most part they died of mere famine. There were never Englishmen left in a foreign country in such misery as we were, in this new discovered Virginia. We watched every three nights lying on the bare cold ground, what weather soever came; warded all the next day which brought our men to be most feeble wretches. Our food was but a small can of barley sod in water to five men a day; our drink cold water taken out of the river, which was at flood very salt, at a low tide full of slime and filth, which was the destruction of many of our men. Thus we lived for the space of five months in this miserable distress, not having five able men to man our bulwarks upon any occasion. If it had not pleased God to put a terror in the savage's hearts, we had all perished by those wild and cruel pagans, being in that weak estate as we were; our men night and day groaning in every corner of the fort most pitiful to hear. If there were any conscience in men, it would make their hearts bleed to hear the pitiful murmurings and outcries of our sick men, without relief every night and day for the space of six weeks; some departing out of the world, many times three or four in a night, in the morning their bodies trailled out of their cabins like dogs to be buried."

According to Purchas, three thousand five hundred and seventy emigrants arrived in Virginia during the years 1619, 1620, and 1621. Before these arrived there were

³ Tyler, *History of American Literature*, vol. i.

six hundred settlers there, so that the total number of settlers of that colony up to 1621 has been estimated at four thousand one hundred and seventy. In the Indian war of 1622 three hundred and forty-nine whites were killed, but by 1624 the total number of the settlers was but eighteen hundred. This shows a very heavy rate of mortality, especially when it is considered that the majority of the colonists were adult males.

Among the first events of interest connected with the history of their new country which the Puritans learned on landing at Plymouth in 1620, was that the region in which they found themselves had recently been almost depopulated of its native inhabitants by a dreadful plague. Shortly after they had founded their settlement an Indian entered it, who caused them much astonishment by bidding them "welcome" in English. This Indian was the ever-to-be-remembered Samoset, who was of such great service subsequently as interpreter to the colony. He had acquired some knowledge of English from the fishermen on the Maine coast. Bradford⁴ says that Samoset informed the Pilgrims that the place where they had settled was called Patuxet, "and that about four years ago (in 1617), all the inhabitants had died of an extraordinary plague, and there is neither man, woman, nor child remaining, as indeed we have found none." Daniel Gookin,⁵ in his account of the various Indian tribes of Massachusetts, refers to the terrible ravages of this plague. Writing of the tribe known as the Pawkunnawkutts, he says,—

⁴ A Relation or Journal of the Proceedings of the Plantation at Plymouth.

⁵ Historical Collections of the Indians of New England, etc. Reprinted in the Massachusetts Historical Society Collections, first series, vol. i. p. 148.

"This people were a potent nation in former times, and could raise as the most credible and ancient Indians affirm, about three thousand men . . . a very great number of them were swept away by an epidemical and unwonted sickness, An. 1612 and 1613, . . . about seven or eight years before the English first arrived in those parts to settle the colony of New Plymouth. Thereby divine providence made way for the quiet and peaceable settlement of the English in those nations. What this disease was, that so generally and mortally swept away, not only these but other Indians, their neighbors, I cannot well learn. Doubtless it was some pestilential disease. I have discoursed with some old Indians, that were then youths; who say, that the bodies all over were exceeding yellow, describing it by a yellow garment they showed me, both before they died and afterwards."

He then speaks of the Massachusetts, the next great people to the northward of the Pawkunnawkutts. They had at one time been able to muster three thousand fighting men, but the plague had fallen on them also, and reduced their number to three hundred fighting men. Of the Pawtuckets,—

"They were also a considerable people heretofore, about three thousand men, . . . But they also were almost totally destroyed by the great sickness before mentioned; so that at this day they are not above two-hundred and fifty men, besides women and children."

It will be observed that Gookin gives the date of the epidemic as 1612-13, but he undoubtedly has reference to the same epidemic which we know to have occurred in 1616-17. We know as little to-day concerning the real nature of this sickness as Gookin did in his time. By some it has been supposed to have been yellow fever, because of the yellow discoloration of the skin, but this supposition cannot be correct, as it prevailed in the midst of a severe winter, and it was not apparently capable of contagion to the English who were exposed to it. There is some interesting testimony on this point by Sir Ferdi-

nando Gorges.⁶ He speaks of the Indians being "sore afflicted with the plague, so that the country was in a manner left void of inhabitants. Notwithstanding Vines and the rest with him that lay in the cabins with those people that died, some more, some less mightily, (blessed be God for it) not one of them ever felt their heads to ache while they stayed there." Some have thought that this plague must have been an outbreak of smallpox, but the proof seems conclusive that it was not. In the first place, Vines and his men could hardly have slept in the cabins of those who were sick and yet all of them escape the contagion; secondly, in the year 1633-34 smallpox swept off both colonists and Indians in large numbers, and Governor Bradford says the Indians feared it much more than "the plague;" and, thirdly, if the disease had been smallpox surely some of the Englishmen who saw the sick Indians would have recognized it as such, for smallpox was a disease with which at that time all Englishmen were sadly familiar, it being constantly present in their communities.

S. A. Green⁷ has in an appendix printed the following extract from a letter which, written by so eminent a student of Indian lore, would seem quite conclusive. It was addressed to Dr. Green after Mr. Trumbull had read the former's address before the Massachusetts Medical Society in 1881:

"I see that you incline to the belief that the 'prodigious pestilence' which made room for the Pilgrims at Plymouth, was the smallpox, and not the yellow-fever. I have not a copy of Winslow's 'Good Newes' within reach this evening, and I do not recollect his statement that you cite, that the same disease prevailed as late as

⁶ Brief Narration, etc., Massachusetts Historical Society Collections, third series, vol. vi.

⁷ Centennial Address.

November, 1622. This statement may be conclusive against yellow-fever. Roger Williams, in 'Key,' ch. xxxi. shows, however, that the Indians had distinct names for the 'great plague' and 'the (small) pox.' I have indicated, in my edition of the 'Key,' p. 211, the composition of the name for the 'plague,' which agrees exactly with the description of it that the Indians gave to Gookin. 'Wesauashau,' which Williams translates, 'He hath the plague,' literally signifies 'he is *badly* yellow,' and the name for the disease itself, wesauashauonck, is 'a bad yellowing,' or, 'being badly yellow.' I am not quite certain of the signification of the Indian name for the smallpox, Mamaskishauonck, but this name is still in use—under various dialectic variations—by several, perhaps by all Algonkin tribes. For the Narraganset *Mamaskishau*, 'he has the smallpox,' the Chippeways have *Omamakisi*, and for the name of the disease, *Mamakisi-wiu*. (The *toad*, by the way, is named by the Chippeways, *Omakiki*, probably from his warty skin.) In the western Cree, the verb becomes omiki-u, and the noun, omikiwiu,—which is used as a name for *Psora*, as well as for the small-pox, and also enters into the composition of *leprosy*, and is nearly related to the names for measles and scarlatina. In the western dialects, the derivation of these names seems plainly enough to be from a root denoting *redness*; and if so, the Narragansett (and Massachusetts) name for the small-pox must have been derived from that of some earlier-known disease, which signifies 'redness of skin' or 'eruption' (*Psora*?), by intensive reduplication and the suffix denoting badness,—so as to give the meaning of a 'very great bad redness' or cutaneous eruption.

"As I have said, Roger Williams shows that the small-pox and 'the great plague,' were distinguished by the Indians of New England by different names. They told him, 1637-43, of 'the last pox' and 'the great (literally the *last*) plague,' and diagnosed the two as well as they could by single words; 'the late great eruption' and 'the late great yellowing, or yellowness.' Eliot evidently identified the 'yellowing' with a 'fever,'—for while he uses *wesau-shaonk* for 'pestilence,' in Psalm xci. 3, 6, and Luke xxi. 11, and for 'plague' (rarely) as in Luke vii. 21, he also uses the verb *vesoshau*, for 'she was sick of a fever,' in Matthew viii. 14, Mark i. 30.

"Very truly yours

"J. H. TRUMBULL."

Winterbotham⁸ says the diseases most prevalent in New England were "Alvine fluxes, St. Anthony's fire,

⁸ History of America.

asthma, atrophy, catarrh, colic, inflammatory, slow, nervous, and mixed fevers, pulmonary consumption, quinzy, and rheumatism."

The Pilgrim Fathers landed at Plymouth in the latter part of December, 1620. Three months later, out of one hundred who had landed but fifty survived. Bradford⁹ attributed this mortality to "being Infected with ye Scurvie and other diseases, which this long vioage & their Inacomodate condition had brought upon them; so as there dyed some times 2 or 3 of a day, in ye foresaid time."

C. F. Adams¹⁰ writes as follows of the unsanitary conditions which prevailed at Charlestown, where the first emigrants who came to Boston were settled before going to the latter place:

"A state of things better calculated to breed sickness could not well have existed. Several hundred men, women and children were crowded together in a narrow space, almost without shelter, and with unaccustomed and improper food. . . . When they arrived they had been living for months on shipboard, fed on that salt meat which was then the only sea fare. Their systems had become reduced and the scurvy had broken out. They were in no condition to bear exposure. Then, landed suddenly in midsummer, they had their first experience of a climate quite different from that which they had known before,—a climate of excessive heat and sudden change. Their clothing was not adapted to it. As a matter of course dysentery and all sorts of bowel complaints began to appear. These they did not know how to treat, and they made things worse by the salt food to which they doubtless recurred when they found that an improper use of the berries and natural fruits of the country caused the disorders under which they suffered. Their camp, too, could not have been properly policed. . . . By degrees the hill at Charlestown, covered with decaying vegetable and animal matter, became unfit for human habitation; the air reeked with foul odors."

Dr. Fuller came over from Plymouth to try and help them in their plight, but he wrote back in despair,

⁹ History of the Plymouth Plantation.

¹⁰ Three Episodes of Massachusetts History, vol. i. p. 235.

"Many are sick, and many are dead, the Lord in mercy look upon them. . . . I here but lose time and long to be home." Finally, after every family in the settlement had lost at least one of its members, the emigrants moved over to the healthy location on which now stands Boston.

The Quakers and Swedes, who composed the bulk of the settlers of Pennsylvania and New Jersey, seem to have had a much more comfortable time in making their first settlements than did the emigrants who had settled New England or Virginia. There were many good reasons for this. The settlements were not made until many years after those farther north and south, and the colonists profited greatly by the experiences of those who had gone before. The expeditions were sent out in a much more deliberate manner; and hence the ships afforded better accommodations and carried better assortments of the articles needed by the settlers than did those of the previous years. The emigrants, or at least those who sent them out, were, as a rule, men of more worldly substance than the New England settlers. Not that there were not many wealthy colonists in New England, such as John Winthrop and Isaac Johnson, but there was a more even distribution of wealth among the Swedes and Quakers, very few of whom, except the articulated servants, were very poor men, though few of them were very rich. Of course, also, the climate was not so rigorous as that of Massachusetts.

Smallpox.

Let us begin our consideration of the well-defined epidemics which devastated the colonies by the consideration of the disease which was so awful an inmate of almost all the homes of the period at one time or another, but which science has now practically shorn of its terrors.

The very first medical publication in North America was a "Brief Rule to guide the Common People of New-England. How to order themselves and theirs in the Small Pocks, or Measels," by Thomas Thacher, a clergyman, who also practised medicine, in the town of Boston. He published it in 1677.

The early settlers of New England seemed to think that, though a great hardship that they themselves should suffer from smallpox, nevertheless the decimation of the Indian tribes by it was a providential interposition of God on behalf of the infant colonies.

Thus Love¹¹ quotes Amos Adams's fast-day sermon of April 16, 1769, in which he says, "and lest after all, the savages should prove too hard for them, in 1633 the small pox made dreadful havock among them and swept away almost whole plantations of Indians."

In 1663 the Dutch colony of New Netherlands was visited by floods and an earthquake and by a most malignant epidemic of smallpox, which was of a virulent character and spread through the colony with great rapidity, so that on April 4 they held a fast-day for deliverance from all these evils.

In 1666 smallpox prevailed throughout New England, having been brought over from England, which at that time was being swept by an epidemic of the disease.

In 1677 and 1678 smallpox was very prevalent, and fast-days were held to avert its ravages.

The month of February, 1689-90, found the people of Massachusetts agitated about the prevalence of the smallpox and a descent of the French and Indians on Schenectady. These were the main causes mentioned in the proclamation for a fast on March 6 of that year.

¹¹ Fast and Thanksgiving Days in New England.

The smallpox, however, increased in virulence, and subsequently, on July 10, another public fast was held by order of the General Court "in regard of ye troubles yt weer upon us and ye wars with French & Indians and ye sickness yt weer amongst us as ye feavor & smallpox."

On February 23, 1692-93, the colonists held a thanksgiving day for the cessation of this scourge.¹²

In 1702 smallpox raged in Boston to such an extent that the General Court assembled at Cambridge. It was in many cases accompanied by a "scarlet eruption," which rendered its diagnosis from scarlet fever very difficult.

But science was soon to deprive this terrible enemy of much of its virulence. One of those great steps was to be taken which have so often marked the path of science in its battle with disease.

To the Rev. Dr. Cotton Mather, of Boston, is to be ascribed the first suggestion in this country of the use of inoculation to combat the ravages of smallpox.

In April, 1721, Lady Mary Wortley Montague returning to England from Turkey introduced to her countrymen the practice of inoculation for smallpox, which had long prevailed among the Turks.

In 1717 Dr. Woodward communicated to the Royal Society a description of the practice of inoculation among the Turks, written by an Italian named Timoni, and in the same volume, No. xxix., of the "Philosophical Transactions of the Royal Society," there appeared another account of the Turkish method by Dr. Pylarini.

These communications were read by the Rev. Cotton Mather, of Boston. At that time smallpox was epidemic

¹² Love, loc. cit.

in that city, after it had undergone a freedom from the scourge for nineteen years. The disease had been brought into the city by a ship from the Tortugas. He endeavored to interest a number of different medical men in what he had read about inoculation and to induce them to give the method a trial. They all ridiculed the idea and treated the proposition with scorn. When, however, he communicated his information to his warm personal friend, Dr. Zabdiel Boylston, the latter at once saw the value of the remedy and entered eagerly into the scheme to stamp out the plague. Dr. Boylston was one of the best-known medical men in Boston. He was not only distinguished as a medical man but had acquired no mean reputation as a zoologist and botanist, and was universally respected and loved because of his moral character and benevolent disposition.

June 27, 1721, only two months later than the introduction of the practice into England, Dr. Boylston inoculated his only son, a boy of thirteen, and two negro servants. The attempts proved completely successful.

Hutchinson¹³ says,—

"In the year 1721, and first part of 1722, Dr. Boylston inoculated 247 persons, and 39 were inoculated by other persons in Boston and its vicinity. Of this number only 6 died, and several of those were supposed to have taken the infection before inoculation. In the same period 5,759 took the disease the natural way, of whom 844 died, and many of those who recovered were left with broken constitutions and disfigured countenances."

Of the six deaths the following explanation was offered:¹⁴

¹³ History of Massachusetts.

¹⁴ Crookshank, History of Vaccination. A quotation from Boylston, An Historical Account of the Small Pox inoculated in New England upon all sorts of Persons, Whites, Blacks, and of all Ages and Constitutions, 1726.

"And as to those who died under Inoculation, I would observe that Mrs. Doxwell, we have great reason to believe was infected before. Mr. White thro' splenetic delusions, died rather from abstinence than the Small Pox. Mrs. Scarborough and the Indian girl died of accidents by taking cold. Mrs. Wells and Searle were persons worn out with Age and Disease, and very likely these two were infected before."

Crookshank, however, thinks the deaths were attributable to Boylston's method of performing the operation, which was as follows:

"Take your Medicine or Pus from the ripe pustules of the Small Pox of the distinct kind, either from those in the natural way, or from the inoculated sort, provided the person be otherwise healthy and the matter good. My way of taking it is thus: Take a fine cut, sharp toothpick (which will not put the person in any fear, as a Lancet will do many), and open the Pock on one side, and press the Boil, and scoop the matter on your quill, and so on."

But the persecution which befell Mather and Boylston and those who supported inoculation is almost incredible. Almost every medical man of the city joined in reprobating the practice and vilifying the personal character of those who had introduced it. The clergy and the newspapers took up the hue-and-cry, and finally the Legislature and the courts took a hand in the effort to suppress a measure of such incalculable value to the community. A fast and furious pamphlet war was precipitated, and the current literature teemed with articles for and against the practice. Many pious, respectable personages were of the opinion that should any one of his patients die the doctor should be hung for murder.

Crookshank quotes the following manifesto as giving a severe blow to the practice of inoculation:

"At a meeting by Public Authority in the Town-house of Boston before his Majesty's Justices of the Peace and the Select-Men; the Practitioners of Physick and Surgery being called before them concerning Inoculation, agreed to the following conclusion:—

"A resolve upon a Debate held by the Physicians of Boston concerning Inoculating the Small Pox, on the twenty first day of July, 1721. It appears by numerous Instances, That it has prov'd the Death of many Persons soon after the Operation, and brought Distempers upon many others, which have in the end prov'd fatal to them. That the natural tendency of infusing such malignant Filth in the Mass of Blood, is to corrupt and putrify it, and if there be not a sufficient Discharge of the Malignity by the Place of Incision or elsewhere, it lays a Foundation for many dangerous Diseases.

"That the Operation tends to spread and continue the Infection in a Place longer than it might otherwise be.

"That the continuing the Operation among us is likely to prove of most dangerous Consequence.

"By the Select-Men of the Town of Boston, July 22nd.

"The number of Persons, Men, Women, and Children, that have died of the Small Pox at Boston, from the middle of April last (being brought here then by the *Saltertuda's Fleet*) to the 23rd of this instant July (being the hottest and the worst Season of the Year to have any Distemper in), are viz., 2 Men Strangers, 3 Men, 3 Young Men, 2 Women, 4 Children, 1 Negro Man, 1 Negro Woman, and 1 Indian Woman, 17 in all; of those that have had it, some are well recovered, and others in a hopeful and fair Way of Recovery."¹⁸

The Rev. Mr. Walter, a minister in Roxbury, and nephew of the Rev. Cotton Mather, had been inoculated at Dr. Mather's house in Boston. One morning at about three o'clock a bomb was thrown into the chamber of his uncle's house, in which he was lodged, but the fuse broke off as it was hurled through the window. Attached to the shell was found a scurrilous message.

Dr. Boylston was assaulted in the streets, attempts were made to burn his house, and once a bomb was thrown into the parlor in which his wife was sitting.

The House of Representatives passed a bill prohibiting inoculation under severe penalties, but it never became a law. Many clergymen denounced the practice from their pulpits as immoral.

¹⁸ Hutchinson's History of Massachusetts.

The *New England Courant*, published by James Franklin with his brother Benjamin, took a very active part in the opposition to inoculation. Its columns fairly teemed with denunciatory utterances.

Subsequently Benjamin Franklin became one of the strongest advocates of inoculation.

In his *Autobiography* he relates that in 1736 he lost a son, "A fine boy of four years old, by the smallpox, taken in the common way. I long regretted him, and still regret that I had not given it to him by inoculation. This I mention for the sake of parents who omit that operation, on the supposition that they should never forgive themselves, if a child died under it, my example showing that the regret may be the same either way, and therefore that the safer should be chosen."

When in London in 1759 he wrote for Dr. William Heberdeen, the great physician of that city, an account of his observations on the results of inoculation upon smallpox in America, which is of such interest and presents such a common-sense epitome of the status of the practice of inoculation at that time that I reprint it in its entirety at the end of this chapter.¹⁶

The most prominent among Dr. Boylston's assailants was Dr. William Douglas, a very eminent Scotch physician located in Boston. He seems to have been a man of much learning, but possessed of great conceit in his own abilities and of a most outrageous temper, and, from the part he took in this contest, not over-scrupulous in the weapons he employed against his adversaries. He was assisted in his persecution of Dr. Boylston by Dr. Lawrence Dalhonde, a Frenchman, who had a considerable practice in the city. Thacher prints a deposition

¹⁶ Note A at end of chapter.

made by Dalhonde before two magistrates of Boston, which I reprint at the end of this chapter as showing the malicious mendacity of Dr. Boylston's opponents.¹⁷

It is pleasant to record, however, that Dr. Boylston's meritorious efforts to benefit humanity met with their just reward. The results obtained by inoculation were such as to convince most, even of its bitterest opponents, of the utility of the practice, and Dr. Boylston accordingly became as much belauded as formerly his character and motives had been besmirched. Sir Hans Sloane, the distinguished English scientist, extended the doctor an invitation to visit him in London, which he accepted. After his arrival in that city he was elected a member of the Royal Society, the first American, Thacher believes, who ever received that honor. He published at the request of the Royal Society an account of his method of inoculation, which was afterwards republished in Boston. According to Woodville,¹⁸ Boylston was the first to discover that the incubation period of inoculation was shorter than that of smallpox.

Inoculation for smallpox was apparently confined solely to Boston and its immediate vicinity for some years after the first use of it. In 1730 smallpox was epidemic in Philadelphia, and Watson¹⁹ quotes from the *Pennsylvania Gazette* of March 4, 1730, the following interesting item:

"The practice of inoculation for the smallpox begins to grow among us. J. Growden, Esq., the first patient of note, is now upon recovery, having had none but the most favorable symptoms during the whole course of the distemper, which is mentioned to show how groundless all those reports are that have been spread through the Province to the contrary."

¹⁷ See Note B at end of chapter.

¹⁸ Crookshank, loc. cit.

¹⁹ Annals of Philadelphia.

Previous to this time many attempts had been made to prejudice the public mind against the practice. The *Weekly Mercury* for the 1st of January, 1722, reprinted a sermon of the Rev. Mr. Masley, who, according to Watson, "preached and published against the inoculation of the smallpox, which he calls 'an unjustifiable act, an infliction of an evil, and a distrust of God's overruling care, to procure us a possible future good.'"

Norris²⁰ mentions Franklin's conversion to a belief in the utility of inoculation, and quotes from his newspaper:

"The smallpox has quite left the city, the number of those that died here of that distemper is exactly 288, and no more; sixty-four of the number were negroes; if these may be valued one with another at £30 per head, the loss to the city in that article is near £2,000."

Norris mentions that during the epidemic which prevailed in Philadelphia in 1736 and 1737 the opposition to inoculation was still very considerable, as but one hundred and twenty-nine persons were inoculated. Of this number but one, an infant, died.

In 1738 smallpox was introduced into South Carolina by an African slave-ship, and Mr. Mowbray, a surgeon, combated the outbreak by inoculation.

In 1764, when smallpox was again epidemic in Boston, three thousand persons were successfully inoculated, the success of the inoculations being attributed to a preparatory course of treatment with mercurials and antimony, undergone by the patient before the operation.

This preparatory treatment was as follows:²¹

"The night before you inoculate, give a few grains of calomel well levigated with a like quantity of diaphoretic antimony un-

²⁰ Early History of Medicine in Philadelphia.

²¹ Toner, Annals of Medical Progress.

washed, proportioning the quantity of calomel to the constitution of your patient; from four grains to ten for a grown person, and from one to three for a child, to be made up into a bolus or simple pill with a little conserve of roses or any common syrup. The next morning give a purge of the pulvis cornachine, made with equal parts of diaphoretic antimony, scammony and cream of tartar. Repeat the bolus or pill three times, that is, once every other night after inoculation; and on the fifth day give a dose of Boerhaave's golden sulphur of antimony; about four grains of it for a grown person, with two or three grains of calomel made into a small pill will operate as a vomit and purge at the same time. In the intermediate days, give two or three papers of the following powders; diaphoretic antimony, ten grains; sal. prunel. six grains; calomel, one grain, mixed together (for a grown person) and one fourth part of a paper for a child. These powders are to be continued until the variolus or small-pox is over; and while the fever is high, let your patient drink a cup of whey two or three times a day; the whey to be made of cream of tartar instead of rennet, and those that are of full habit should be blooded once or twice within the first eight days, and must abstain from all spirituous liquors, and from meat of all kinds, broth, salt and butter."

The opposition to inoculation was very vehement in New York, and on June 6, 1747, Governor Clinton issued a proclamation "strictly prohibiting and forbidding all and every of the Doctors, Physicians, Surgeons, and Practitioners of Physick, and all and every other person within this Province, to inoculate for the small pox any person or persons within the City and County of New York, on pain of being prosecuted to the utmost rigour of the law."

We find the custom of inoculation progressively gained ground as years passed on, each succeeding outbreak of smallpox in a community serving to demonstrate the immunity conferred on those who had been inoculated.

It became customary for doctors to take up the practice of inoculation as a special line of work, and many practitioners fitted up private houses as hospitals in which their patients could be kept whilst undergoing the pro-

cess, and frequently a number of friends, or the members of a family, would all retire to the seclusion of an inoculating house at the same time, in order that they might enjoy one another's society during their period of seclusion. Alice Morse Earle²² hints that many romances and love-affairs arose from the propinquity thus brought about, although, as she says, the circumstances were not prepossessing.

In the very entertaining "Life of Mercy Warren," by Alice Brown, there are a number of quotations from letters of the time on this subject. Hannah Winthrop, writing to Mercy Warren in 1776, says,—

"The reigning subject is the Small Pox. Boston has given up its Fears of an invasion & is busily employed in Communicating the Infection. Straw Beds & Cribs are daily Carted into the Town. That ever prevailing Passion of following the Fashion is as predominant at this time as ever. Men Women and Children eagerly crowding to inoculate is I think as modish as running away from the Troops of a barbarous George was the last year."

James Warren²³ writes to John Adams from Boston, July 17, 1776, as follows:

"MY DEAR SIR,—When you are Informed that in the variety of changes that have taken place in this Town it is now become a great Hospital for Inoculation you will wonder to see a Letter from me dated here, but so it is that the rage for Inoculation prevailing here has whirled me into its vortex & brought me with my *other self* into a Crowd of Patients with which this Town is now filled. Here is a collection of Good, Bad, and Indifferent of all Orders, Sexes, Ages and Conditions, your good Lady & Family among the first. She will give you (I presume) such acct of herself &c as makes it unnecessary for me to say more on that head. She will perhaps tell you that this is the reigning subject of conversation, & that even Politics might have been suspended for a Time if your Declaration of Independence & some other political movements of yours had not reached us. The Declaration came on Saturday & diffused a general

²² Customs and Fashions of Old New England.

²³ Brown, Life of Mercy Warren.

Joy. Every one of us feels more Important than ever, we now congratulate each other as Freemen, it has really raised our Spirits to a Tone Beneficial to mitigate the Malignancy of the Small Pox, & what is of more consequence seems to animate and inspire every one to support & defend the Independence he feels."

A week later, July 24, 1776, John Adams writes to him,—

"This, I suppose, will find you at Boston, growing well of the Small Pox. This Distemper is the King of Terrors to America this year. We shall suffer as much by it as we did last Year by the Scarcity of Powder. And therefore I could wish, that the whole people was inoculated,—it gives me great pleasure to learn that such numbers have removed to Boston, for the sake of going through it, and that Inoculation is permitted in every town.

"I rejoice at the spread of the Small Pox on another account, having had the Small Pox, was the merit, which originally recommended me to this lofty Station. This merit is now likely to be common enough & I shall stand a chance to be relieved. Let some others come here and see the Beauties and Sublimities of a Continental Congress.—I will stay no longer.—A Ride to Philadelphia, after the Small Pox, will contribute prodigiously to the Restoration of your Health."

On August 17 he writes to Warren to "Congratulate you and your other self, on your happy Passage through the Small Pox."

Mrs. Warren's biographer furnishes us with what she aptly terms the "domestic atmosphere of the question," as set forth in a letter from Mercy Warren to her husband:

"PLYMOUTH 25 Nov. 1776.

"The letter my dear Mr. Warren will receive to-morrow I almost wish I had not wrote. I own I was a little too Low spirited, but my mind was oppressed & I wanted to unbosom—it is this evening no less free from care though I feel a little Differently. I was ready to think the task of Governing & Regulating my Children alone almost too much—I am now forced to strive hard to keep out the Gloomy apprehension that the Burden may soon be lessened in some painful way. I have been this afternoon at the hospital where I left your three youngest sons. Poor Children—it was not pos-

sible to make them willing to give up the project, they thought it a mighty privilege to be inoculated. I wish nor they nor we may have Reason to Regret it—but I cannot feel quite at Ease—I Want to Discourage Winslow from going in yet am afraid. Their accomodations are not altogether to my liking nor are their Nurses sufficient but they talk of getting more & better—but if my dear Children should be very ill I must go and take charge of them myself. Inconvenient as it is—48 persons were inoculated this afternoon & as many will offer tomorrow. I think it is too many for one Class. But there they are—& and it is as easy for the Great phisition of soul & Body to Lend Healing Mercy to the Multitude as to the Few, and if he Brings them Back in safty to their several Habitations I hope we shall Adore the Hand that Heals, and give Glory to the Rock of our salvation.”

Fortunately, the children all passed through the ordeal successfully.

She also quotes an amusing anecdote which John Adams narrated of his inoculation. Adams says,—

“After having been ten or eleven days inoculated, I lay lolling on my bed in Major Cunningham’s chamber under the tree of liberty, with half a dozen young fellows as lazy as myself, all waiting and wishing for symptoms of eruptions; all of a sudden appeared at the chamber door the reverend Doctor (Mathew Byles) with rosy face, many-curled wig, and pontifical air and gait. ‘I have been thinking,’ says he, ‘that the clergy of this town ought upon this occasion to adopt the benediction of the Romish clergy, and when we enter the apartment of the sick, to say in the foreign pronounciation Pax tecum!’ These words are pronounced by foreigners, as the Dr. pronounced them, ‘Pox take em.’”

Mrs. Earle quotes an advertisement from the *Connecticut Courant* of November 30, 1767, which exhibits so well the ordinary method of running these inoculation hospitals that I reproduce it:

“Dr. Uriah Rogers, Jr. of Norwalk County of Fairfield takes this method to acquaint the publick & particularly such as are desirous of taking the Small Pox by way of Inoculation, that having had Considerable Experience in that Branch of Practice and carried on the same last season with great Success; he has lately erected a convenient Hospital for that purpose just within the Jurisdiction

Line of the Province of New York about nine miles distant from N. Y. Harbor, where he intends to carry said Branch of Practice from the first of October next to the first of May next. And that all such as are disposed to favour him with their custom may depend upon being well provided with all necessary accommodations, Provisions, & the best Attendance at the moderate Expence of Four Pounds Lawful Money to Each Patient. That after the first Sett or Class he purposes to give no Occasion for waiting to go in Particular Setts but to admit Parties singly, just as it suits them. As he has another Good House provided near said Hospital, where his family are to live, and where all that come after the first Sett that go into the Hospital are to remain with his Family until they are sufficiently Prepared & Inoculated & Until it is apparent that they have taken the infection."

In the year 1764 there were two inoculating hospitals in the immediate neighborhood of Boston which were held in particularly high repute, one at Point Shirley, the other at Castle William, in the harbor. The hospital at Point Shirley was conducted by Dr. William Barnett from New Jersey. It was established by the Governor and Council of Massachusetts. Green ²⁴ quotes a notice in *The Boston Post-Boy & Advertiser* of March 19, 1764, to wit:

"Those Physicians of the Town of *Boston* who are engaged in carrying on the inoculating Hospital at Point-Shirley, being prevented giving their constant Attendance there during the continuance of the *Small-Pox* in Town, hereby notify the Public, that they are join'd by *Doctor Barnett* of New Jersey, who will constantly attend at said Hospital with one or other of said Physicians whose Business will permit, and employ the utmost Diligence and Attention for the relief of those that put themselves under their care. They further notify, that Point-Shirley contains as many comfortable and decent Houses as will be sufficient to accommodate as many Persons as will probably ever offer for Inoculation at one Time, from this or the neighbouring Governments and is well furnished with every requisite Convenience both for Sickness and Health."

²⁴ History of Medicine in Massachusetts.

The hospital at Castle William was opened later. Green quotes the following advertisement concerning it from *The Boston Post-Boy & Advertiser* for February 27, 1764. It was conducted by Dr. Samuel Gelston, of Nantucket.

"In order to enlarge the Conveniences for Inoculation in addition to those already proposed at Point-Shirley, that every Person desirous of undergoing that Operation may have an Opportunity of doing it without endangering the Spreading of the Distemper, and that this Town may be, as soon as possible, freed from the apprehension of the Small-Pox; the Governor has consented that the Barracks of *Castle-William* shall be improved for the Purpose of Inoculation, from this Time into the Middle of May next. And the said Barracks are now open to *All* Physicians having Patients to Inoculate, under such Rules as shall be thought proper to be made for that purpose. There are in the Barrack 48 Rooms, each of which will contain ten Patients conveniently."

Also from the same newspaper for March 5, 1764, the following:

"DR. SAMUEL GELSTON

"Gives this Publick Notice to his Patients in *Boston* and the adjacent Towns that he has prepared (by Permission of his Excellency the Governor) all comfortable Accommodations for them at the Barracks at *Castle-William*, in order to their being inoculated for the Small-Pox under his immediate Care.

"N. B. His Rooms are in that Part of the Barrack where the Patients of Dr. Nathaniel Perkins, Dr. Whitworth and Dr. Lloyd are received.

"Dr. *Gelston* and Dr. *Warren* reside at *Castle-William* Day and Night.

"*All* Persons inclined to go to the Barracks at *Castle-William* to be inoculated where Dr. *Gelston* resides, may apply to Dr. Lloyd at his House near the King's Chapel, who will provide them a Passage to the *Castle*."

Dr. Green gives an interesting account of the inoculating hospital which was opened on Cat Island, near Marblehead, in October, 1773. It was called the Essex Hospital, and accommodated eighty patients, and was



DR. JAMES LLOYD.



"approved by the Gentlemen Select-Men of Salem and Marblehead." The regulations governing it were published in the *Essex Gazette* for October 5, 1773. There was much feeling against its establishment in the neighborhood, and it was destroyed by an incendiary fire on January 26, 1774. Two of the ringleaders of the incendiaries were arrested on February 25 and put in the Salem jail, but a mob rescued them and took them home to Marblehead.

Norris ²⁵ says that in 1750 the subject of smallpox and inoculation was still a matter of much discussion in Philadelphia. In that year Dr. Adam Thompson published a pamphlet "On the Preparation of the Body for the Smallpox," of which Norris was unable to find a copy, but in which the author states that, upon the suggestion of Boerhaave, "he was led to prepare his patients for the infection by a composition of mercury and antimony, and that he had employed it for twelve years with great success." Dr. Kearsly attacked the author's views in the following year by publishing "Remarks on a Discourse on Preparing for the Smallpox," and this in turn was replied to by Dr. Alexander Hamilton, of Annapolis, Maryland, who published "A Defence of Dr. Thompson's Discourse."

In 1756 there was a serious outbreak of smallpox in Philadelphia. Norris says that the arrival of some British troops under Colonel Boquet helped to spread the disease, and Governor Denny, in his message to the Assembly in December, said, "The smallpox is increasing among the soldiers to such a degree that the whole town will soon become a hospital."

Dr. Laughlin MacLean, an Irishman, who had gradu-

²⁵ History of Medicine in Philadelphia, p. 106.

ated at Edinburgh, and come to this country as a surgeon in the British army, published "An Essay on the Expediency of Inoculation, and the Seasons most proper for it, Humbly inscribed to the inhabitants of Philadelphia. Printed by William Bradford, at the corner house of Market and Front streets." Dr. Norris makes extracts from this little work, which seems to have been a sincere effort to make the people aware of the benefits of inoculation.

Dr. Redman in 1759 also published "A Defence of Inoculation."

In January, 1773, Dr. Glentworth opened an inoculation hospital in Philadelphia, the smallpox being very prevalent in the city at that time. There was an inoculation hospital at Saybrook, Connecticut, founded in 1770 by Dr. John Ely, who was subsequently a colonel in the Revolutionary War.

Dr. Sylvester Gardiner, who besides a large practice ran the largest drug-store in Boston, offered to put up at his own expense an inoculating hospital for sick and wounded sailors, but the offer was probably not accepted, for we hear nothing more of it.²⁶

In the winter of 1774 smallpox was epidemic in Philadelphia, and eight prominent medical men volunteered their services to a "Society for Inoculating the Poor."

In September, 1774, when Congress was in session in the city, the physicians of Philadelphia met and agreed to inoculate no more persons during the sitting of Congress, "as several of the Northern and Southern delegates are understood not to have had that disorder."

In 1779 the discovery of the efficacy of vaccination as a prophylactic and curative agent against smallpox was

²⁶ Massachusetts Historical Society Proceedings, June, 1859.

announced by Jenner. The first to introduce the practice of vaccination into the United States was Dr. Benjamin Waterhouse, who was at the time professor of medicine in Harvard. In July, 1800, he got some vaccine virus from England and with it vaccinated his own son, thus performing that operation for the first time in this country. This boy was about seven years old, and the doctor after vaccinating him performed the same act on his three other children, afterwards exposing them to the disease without any of them contracting it.

At about the same time Dr. Crawford, of Baltimore, procured some virus from London and successfully vaccinated a number of persons. A most interesting account of Dr. Crawford, written by Dr. Cordell, of Baltimore, was published in the *Johns Hopkins Hospital Bulletin* for August-September, 1899.

In the following September Dr. James Jackson brought some virus from England and tried to use it, but the attempt failed, as for some reason it had lost its efficacy.

Some vaccine virus which Dr. Miller, of New York, had procured from London also failed. These failures somewhat retarded its introduction into general use.

In 1801, however, the Massachusetts Medical Society procured some excellent virus from the Vaccine Institution of London, and soon reports of the efficacy of the practice became frequent. It was unfortunate in these early days, when the subject was still in the experimental stage, that Dr. Waterhouse should have become involved in a misunderstanding with the Massachusetts Medical Society, thereby rendering the difficulty surrounding the task of ascertaining the merit of the procedure additionally hard. The first vaccination in Philadelphia was performed upon an infant son of Dr. John Redman Coxe, with virus procured directly from Jenner by his father.

In 1802 the Board of Health of Boston equipped a hospital on Noddle's Island and secured the services of a number of physicians to investigate the merits of vaccination.

On August 16, 1802, they vaccinated nineteen boys, all of whom passed through the successive stages of cowpox, and then, on November 9, twelve of them, and also a son of Dr. Bartlett, who had previously had cowpox, were inoculated for smallpox with matter taken from a patient suffering from that disease. None of the children suffered from this experiment. Then, in order to show that the virus was that of true smallpox, two boys who had not been vaccinated were inoculated with it, and had the typical reaction which always followed such inoculation in an unprotected person. When these two cases were in their acme, matter was taken from them and injected for a second time into the arms of the twelve children who had been previously inoculated, and also in the arms of the seven boys who had been absent at the first inoculation; these latter had been exposed to infection and had yet escaped it, having been in the room with the two boys who had the smallpox, some of them as long as twenty days. The whole nineteen now escaped.

The report of these experiments was signed by eleven physicians, and was published in the *Columbian Centinel* for December 18, 1802.

Milton, Massachusetts, was the first town to give free vaccination to all its inhabitants.

In 1809 three hundred and thirty-seven persons were vaccinated in the town; twelve of them were afterwards found immuned to smallpox by the application of the inoculation test. This test was conducted by Dr. Amos Holbrook. The town published all these facts in a pamphlet entitled "A Collection of Papers relative to the

Transactions of the Town of Milton, in the State of Massachusetts, to promote a General Inoculation of the Cow Pox, or Kine Pox, as a never failing preventative against Small Pox Infection."

Bedford, Massachusetts, offered gratuitous vaccination to its citizens about the same time.

March 10, 1810, the General Court of Massachusetts passed an act by which the towns of the State were directed to appoint committees to superintend the vaccination of their citizens, and the towns were also authorized to bear the expense.

Measles.

Measles seems at times to have raged very fatally in some of the colonial towns.

In 1713 it prevailed in many localities in the New England States.

In 1740-41 Connecticut was swept by a severe epidemic of measles.

In 1758 and in 1759 measles prevailed in epidemic form in many different parts of North America.

In 1772 between eight hundred and nine hundred deaths from measles occurred among the children of Charleston, South Carolina.

In March, 1773, measles broke out in epidemic form in Philadelphia. It was attended with efflorescence about the neck; at the same time catarrh, which could hardly be distinguished from measles, is said to have prevailed.

In 1783 measles appeared at Salem, Massachusetts, in May, and during the remainder of the year was prevalent throughout New England.

In November, 1778, a very malignant epidemic of measles broke out in New York, and a little later in the same winter the epidemic spread through Philadelphia.

Scarlet Fever.

Philadelphia was visited by an epidemic of scarlet fever in September, 1783, and the disease prevailed in Salem, Massachusetts, at the same time.

In 1784 scarlet fever was epidemic in Charleston, South Carolina, in Vermont, New Hampshire, and in Connecticut. Webster says that for five years subsequently scarlet fever was more frequent than usual throughout the country.

In 1789 scarlet fever was epidemic in Philadelphia and parts of New Jersey.

In 1793 and 1794 scarlet fever prevailed in more or less epidemic form throughout all the Northern States.

Influenza.

Epidemics of influenza prevailed throughout the colonies at various times.

In the year 1647 an epidemic of this nature swept through the New England settlements. Winthrop²⁷ has left us a graphic description of it, as follows:

"An epidemical sickness was through the country among Indians and English, French and Dutch. It took them like a cold and slight fever with it. Such as bled or used cooling drinks died; those who took comfortable things, for most part recovered and that in few days. Wherein a special providence of God appeared, for not a family, nor but few persons escaping it, had it brought all so weak as it brought some, and continued so long our hay and corn had been lost for want of help; but such was the mercy of God to his people, as few died, not above 40 or 50 in the Massachusetts, and near as many at Connecticut."

Love²⁸ quotes the description given of this illness by John Eliot. He wrote of it as "a very depe cold, with some tincture of a feaver & full of malignity & very

²⁷ History of New England, vol. ii. p. 310.

²⁸ Fast and Thanksgiving Days in New England, p. 186.

dangerous if not well regarded by keeping a low diet." Eliot thought it seemed as though the Angel of God had smitten the people. In this epidemic Winthrop's wife died, also the Rev. Thomas Hooker.

Hubbard refers to an epidemic of influenza which swept the New England colonies in 1655. He speaks of it as having been accompanied by "a faint cough." There was also an outbreak of influenza in 1660.

Webster ²⁹ quotes a description of the influenza which prevailed in New England in 1697-98 from a diary kept by one Daniel Fairfield, of Braintree, Massachusetts. The epidemic began in November and continued until February. "Its violence was in January, when whole families were sick at once, and whole towns were seized nearly at the same time."

At the same time a similar condition of affairs prevailed in Fairfield, Connecticut, where, in a town of less than one thousand inhabitants, seventy persons were buried in three months.

In 1747 influenza raged all over North America, and again in 1761.

Dr. Cotton Tufts, of Weymouth, furnished Webster with the following account of the symptoms presented by the disease during the epidemic of 1761:

"The distemper began in April, and in May ran into a malignant fever, which proved fatal to aged people. It spread over the whole country and the West India Islands. It began with a severe pain in the head and limbs, a sensation of coldness, shiverings succeeded by great heat, running at the nose, and a troublesome cough. It continued for eight or ten days, and generally terminated by sweating.

"In May, the aged who had before escaped, were seized with an affection like a slight cold; this in a day or two was followed by great prostration of strength, a cough, labor of breathing, pains

²⁹ Epidemic and Pestilential Diseases.

about the breast, præcordia, and in the limbs, but not acute. The countenance betrayed no great marks of febrile heat. The matter expectorated was thin but slimy. As the disease advanced, the difficulty of breathing increased; the expectoration was more difficult; the matter thrown off more viscid; at length the lungs appeared to be so loaded with tenacious matter, that no efforts could dislodge it, and the patient sunk under it. This disorder carried with it bilious appearances — the countenances of some patients were of a yellowish hue. In some, there was an appearance of indifference or insensibility; and at night a slight delirium."

Altogether the above picture is very characteristic of the disorder which we now call la grippe.

The disease was epidemic all over the country in the spring of 1781, and was observed to leave a tendency to the development of pulmonary consumption.

In the autumn of 1789 influenza was epidemic in New York and Philadelphia, and a little later through New England.

Diphtheria.

In 1659 an epidemic disease ravaged the New England States which is referred to by contemporary annalists as "Cynanche Trachealis," and was doubtless the disease we term diphtheria. A day of thanksgiving was ordered by the Legislature of Connecticut at the cessation of an epidemic of this character in 1662.

In 1735 and 1736 Boston was visited by an epidemic, which was undoubtedly diphtheria, though then termed angina maligna. An excellent account of it was written by Dr. William Douglas, under the title "The Practical History of A New Epidemical Eruptive Miliary Fever, with an Angina Ulcusculosa which Prevailed in Boston New England in the Years 1735 and 1736."

The ravages of the disease must have been something fearful, as Green ³⁰ has quoted from *The Boston Weekly*

³⁰ History of Medicine in Massachusetts.

News-Letter for April 29, 1736, the following proclamation to show :

"The *Select-Men of the Town of Boston*, in order to inform the Trading Part of our neighbouring Colonies, concerning the state of the present *prevailing Distemper* in this Place, did desire a Meeting of as many of the *Practitioners in Physick* as could then be conveniently obtained. The Practitioners being accordingly met, did unanimously agree to the following Articles:

"1. That upon the first appearance of this *Illness in Boston* the *Select-Men* did advise with the *Practitioners*; but they at that Time having not had opportunities of observing the Progress of the *Distemper*, it was thought advisable (until further Experience) to shut up that *Person* who was supposed to have received it in *Exeter* to the Eastward, upon his Death the Watch was soon removed, but no Infection was observed to spread or catch in that Quarter of the Town; therefore no Watches were appointed in the other Parts of the Town where it afterwards appeared, the Practitioners judging it to proceed from some *occult Quality in the Air*, and not from any observable *Infection communicated by Persons or Goods*.

"2. The Practitioners and their Families have not been seized with this Distemper in a more *remarkable* manner (and as it has happened not so much) than other Families in Town, even than those Families who live in solitary Parts thereof.

"3. As to the Mortality or Malignity of this Distemper, all whom it may concern are referred to the Boston Weekly Journal of *Burials*; by the Burials it is notorious, that scarce any Distemper, even the most favourable which has at any Time prevailed so generally, has produced fewer Deaths.

"4. As formerly, so now again after many Months Observation, we conclude, That the present prevailing Distemper appears to us to *proceed from some Affection of the Air, and not from any personal Infection receiv'd from the Sick, or Goods in their neighbourhood*.

"NATHANIEL WILLIAMS
WILLIAM DOUGLASS
JOHN CUTLER
HUGH KENNEDY
WILLIAM DAVIS
THOMAS BULFINCH."

The disease was commonly known as the "Throat Distemper," and according to Webster,³¹ this epidemic began

³¹ Epidemics and Pestilential Diseases.

in the town of Kingston, New Hampshire. Three months after its first appearance in that town the disease appeared at Exeter, six miles distant, and one month later had become prevalent in Boston. The epidemic extended its area, and gradually the disease broke out in Connecticut, New York, and New Jersey.

Wickes³² quotes two notices regarding this outbreak from *Zenger's Weekly*, of New York. The first is dated February 9, 1735-36:

"THROAT DISTEMPER: We are informed that at Crosswicks in West Jersey, divers persons have lately died with a distemper in the throat, and that that Distemper prevails there. We are therefore desired to publish the following remedy (which has proved successful) for the advantage of those who may hereafter be visited with the like distemper:—Take some Honey and the sharpest Vinegar with Allum dissolved therein, and let the patients often gargle it in their throats; or if they be children, then take a feather and dip it in said liquor, and so wash their throats."

The second extract is dated March 18, 1735-36. It is a notice copied from the *Boston Gazette*, written by a physician.

"METHOD OF CURE OF THROAT DISTEMPER. What is used is as follows. First be sure that a vein be opened under the tongue, and if that can't be done, open a vein in the arm, which must be first done, as all other means will be ineffectual. Then take borax or honey to bathe or annoint the mouth and throat, and lay on the Throat a plaister Vngiuntum Dialthæ. To drink a decoction of Devil's bitt or Robbin's Plantain, with some Sal Prunelle dissolved therein, as often as the patient will drink. If the body be costive use a clyster agreeable to the nature of the Distemper. I have known many other things used, especially a root called Physick Root, filarie or five-leaved physick; also a root that I know no name for, only Canker Root. But be sure and let blood, and that under the tongue. We have many times made Blisters under the arms, but that has proved sometimes dangerous. . . . It is a distemper which has spread in many places in this Colony" (Massachusetts).

³² History of Medicine in New Jersey.

Webster says the symptoms generally were "a swelled throat, with white or ash-colored specks, an efflorescence on the skin, great debility of the whole system, and a tendency to putridity." He adds:

"It continued its ravages, through that year into the next, and gradually travelled southward, almost stripping the country of children. Very few children escaped, for altho' the disease was very infectious, yet its propagation depended very little on that circumstance. It attacked the young in the most sequestered situations, and without a possible communication with the sick. It was literally the *plague among children*."

In 1742 diphtheria was once more epidemic in many of the Northern colonies. In 1755 diphtheria again prevailed, and in one town in Long Island "two children only, under twelve years of age, survived."³³

Webster says that measles prevailed in 1733 throughout America:

"But the most mortal disease was cynanche trachealis or bladder in the throat. In general, there was little canker, but an extreme difficulty of breathing; the patient being nearly suffocated with a tough mucous or slime, which no medicine could attenuate or discharge, and which finally proved fatal. All medical aid was fruitless, and scarcely a child that was attacked in some towns, survived. This disease was speedily followed, in some places by the dysentery of a peculiarly malignant type, occasioning mortification on the third day. This disease was prevalent and very fatal in New Haven and East Haven in Connecticut, and in Salem, Massachusetts."

Webster's authorities were Drs. Trumbull and Holyoke.

1775 was again marked in New England by the frequency with which diphtheria prevailed. It is mentioned as being particularly severe at Middletown, Connecticut.

In 1787 diphtheria was epidemic at Northampton, Massachusetts.

³³ Webster.

Dysentery.

Dysentery seems to have frequently prevailed as an epidemic among our forefathers.

In 1709 a body of troops under command of General Nicholson, engaged in an expedition against the French in Canada, were encamped during July and August near Wood Creek in New York. Dysentery broke out among them with such violence as to necessitate their breaking camp. It was currently believed at the time that the Indians had poisoned their water-supply by throwing into the creek the skins of animals they had killed.

In 1745 Stamford, Connecticut, was ravaged by dysentery. The epidemic was localized in one street. There were seventy deaths in a population of several hundred.

In 1749 dysentery again visited the towns of Connecticut. Waterbury had one hundred and thirty deaths, chiefly from that disease. Cornwall lost twenty persons by it. In Hartford and Woodbury many died.

In the winter of 1750-51 New Haven and Hartford suffered from another epidemic of the same disease.

In 1758 and 1759 dysentery was epidemic throughout many parts of North America, especially in the New England colonies.

In 1776 dysentery was prevalent throughout North America, and particularly so in the various camps which covered the country. In Northern New York it was terribly fatal. Webster devotes much space to the attempt to prove that camp-life had nothing to do with the epidemic, but there is no doubt that in many instances the disease was propagated by the conditions in which the soldiery were placed. Dr. Ebenezer Beardsley wrote an interesting account of the outbreak of dysentery in the Twenty-third Regiment of the Continental army, which he attributed to overcrowding in barracks, which

were likewise poorly ventilated. The regiment was quartered in New York at the time.³⁴

Dysentery was epidemic in many places in the State of New York and in parts of Massachusetts in 1795 and 1796.

Pleurisy.

This is not infrequently mentioned as occurring in epidemic form in the colonies.

In October, 1712, Webster says, there prevailed "a mortal sickness in the town of Waterbury, in Connecticut, which raged for eleven months. It was so general that nurses could scarcely be found to tend the sick. What the disease was, I am not informed; but not improbably it was that species of putrid pleurisy, which has so often made dreadful havoc in America."

Hydrophobia.

Webster says that in 1785 "canine madness began to rage and spread in all parts of the northern States. The gazettes of 1785 abound with accounts of this dreadful disease." He mentions it as being very frequent again in 1789.

Unclassified Epidemic Diseases.

In the winter of 1697-98 a deadly fever raged in Dover, New Hampshire, of which Webster says,—

"This disease was doubtless that species of inflammatory fever, attacking the brain and ending in typhus which has often proved a terrible scourge to particular parts of America."

From the scanty evidence we possess it is probable this disease was epidemic cerebro-spinal meningitis.

³⁴ Dr. Beardsley's paper was published in the first volume of the Transactions of the New Haven County Medical Society. This was the first volume of transactions ever published by a medical society in this country.

In 1715 Plymouth, Massachusetts, was visited by a very mortal epidemic, regarding the exact nature of which nothing is known. Forty deaths occurred from it.

Webster said he had seen a letter in the possession of Dr. Rush from Thomas Hacket, of Duck Creek, Delaware, in which he stated that in the spring of 1720 "a mortality prevailed in that place, which exceeded that in London in 1665, and almost depopulated the village."

In 1723 a fatal disease, known as the "burning ague," was prevalent in Rhode Island. It was particularly so near Providence.

"In proportion to its patients, no disease in America, was ever more mortal. It did not prevail in a large town, but in villages, and perhaps the clearing of some neighboring swamps might have been one cause of the disease."

In 1746, according to Webster,³⁵ Albany, New York, was visited by what Dr. Cadwallader Colden termed a nervous fever and Dr. Douglass yellow fever. Webster says,—

"The bodies of some of the patients were yellow—the crisis of the disease was the ninth day; if the patient survived that day, he had a good chance for recovery. The disease left many in a state of imbecility of mind; others were afterwards troubled with idiocy; others were afterwards troubled with swelled legs. The disease began in August, ended with frost, and carried off forty-five inhabitants mostly men of robust bodies. It was said to be imported."

A similar disease raged simultaneously among the Mohegan Indians.

In 1750 the town of Bethlem, Connecticut, suffered from a fever, probably malarial, which caused between thirty and forty deaths.

³⁵ Epidemic and Pestilential Diseases.

Webster says that in December, 1753, and the succeeding month, Holliston, Massachusetts, lost forty-three inhabitants by a mysterious febrile disease:

"The disease began with a violent pain in the breast, or side, not often in the head; then succeeded a high fever, but without delirium. The critical days were the 3d, 4th, 5th, or 6th. Some of the patients appeared to be strangled to death. The town contained no more than 80 families."

In November, 1760, a terrible epidemic began in the little town of Bethlem, Connecticut, which continued its ravages throughout the succeeding winter and caused the death of forty persons. Webster calls it "an inflammatory fever, with symptoms of typhus." He says, "The disease was extremely violent, terminating on the 3d or 4th day; in some cases the patient died within 24 hours of the attack." Dr. Trumbull, of New Haven, told him "The blood was very thick and sily [sic]; often issuing from the nose and sometimes from the eyes. The inflammation was violent and soon produced delirium. The most robust bodies were most liable to the disease. A free use of the lancet, in the early stages of the disorder, was the only effectual remedy; where the physicians were afraid to bleed, the patients all died."

Webster evidently did not consider this disease as epidemic cerebro-spinal meningitis, for he adds, "I cannot learn that this species of inflammatory fever, has ever been epidemic in the northern parts of America, since this period." It must be remembered, however, that Webster was not a medical man, and was therefore utterly incapable of properly classifying diseases. When he writes down what he has heard from others he is safe, but where he attempts to formulate deductions he often shows his ignorance.

The term bilious plague appears to have been applied to several different diseases. It sometimes undoubtedly was yellow fever, frequently it was applied to pernicious malaria, and occasionally the disease signified by it was probably dysentery. Bilious plague prevailed at Charleston, South Carolina, as an epidemic in 1728.

In 1737 it was epidemic in Virginia.

In 1747 it prevailed in Philadelphia, and in the subsequent year in Charleston, South Carolina.

In August, 1763, the Indians in Nantucket were attacked by the "bilious plague," and Webster says that between that time and the February following their number was reduced from three hundred and fifty-eight to one hundred and thirty-six.

"The disease began with high fever and ended in typhus, in about five days. It appeared to be infectious among the Indians only; for no whites were attacked, altho they associated freely with the diseased. Persons of a mixed blood were attacked but recovered. Not one died, except of full Indian blood. Some Indians who lived in the families of the whites, escaped the disease, as did a few that lived by themselves on a distant part of the island. I am informed, by respectable authority, that a similar fever attacked Indians on board of ships, at a distance of hundreds of leagues, without any connection with Nantucket."

If this "bilious plague" had been yellow fever the whites would have suffered just as much as the Indians, in all probability. Whatever its true nature may have been is now entirely conjectural. It sounds as though its propagation had been largely due to the unhygienic conditions of the Indian settlements.

In 1783 Fell's Point, near Baltimore, was visited by "the bilious pestilential fever," and the same disease visited parts of New Jersey.

In 1772 "a mortal fever" carried off forty of the citizens of the little town of Wellfleet, on Cape Cod.

In 1794, 1795, and 1796 the "bilious plague" appeared in many different places, especially in coast towns, such as New York, Philadelphia, New Haven, Mill River, Connecticut, and Norfolk, Virginia. This disease in many of these instances was undoubtedly yellow fever, but Webster was so anxious to make it appear that some connection existed between comets, and other celestial phenomena, and the atmospheric condition, and the disease that he might at any particular time have under discussion, that he garbled accounts and made comments of all kinds in the effort to suit the facts to his theory, and would not admit that the disease in the towns differed in any respect from the disease as it appeared in malarious districts in the interior. However, from carefully reading many of the clinical reports of cases, made by physicians in different parts of the country, it is evident that Webster mixed up malarial fevers, yellow fever, and even influenza, together in an effort to prove that the sickness and mortality, which was excessive in those years, was due to "bilious plague." He even goes so far, in many instances, as to trace the influence of the atmosphere on animals in sickly seasons. Thus he says, "The pestilential state of the elements was strongly marked, this year [1796] by the poorness of the shad brought to market in New York."

The first use of the name "break-bone fever" that I have found is by Webster. It was applied to a bilious remittent fever which was epidemic in Philadelphia in the summer of 1780. The fever was accompanied by "such acute pains in the back, hips and neck, as to obtain the name of *break-bone-fever*."

NOTE A.

BENJAMIN FRANKLIN'S ACCOUNT OF INOCULATION IN BOSTON.

"LONDON Feb. 16, 1759.

"Having been desired by my greatly esteemed friend Dr. William Heberdeen, F.R.S., one of the principal physicians of this city, to communicate what account I had of the success of Inoculation in Boston, New England, I some time since wrote and sent to him the following paper, viz., About 1753 or 54, the Small Pox made its appearance in Boston, New England. It had not spread in the town for many years before so that there was a great number of the inhabitants to have it.

"At first endeavors were made to prevent its spreading by removing the sick or guarding the houses in which they were; and with the same view Inoculation was forbidden; but when it was found that these endeavors were fruitless, the distemper braking out in different quarters of the town, and increasing, inoculation was then permitted.

"Upon this all that inclined to Inoculation for themselves or families, hurried in to it precipitately, fearing that the affection might otherwise be taken in the common way, the numbers inoculated in every neighborhood spread the infection likewise more speedily among those who did not choose Inoculation, so that in a few months the distemper went thro' the town, and was extinct, and the trade of the town suffered only a short interruption, compared with what had been usual in former times, the country people during the seasons of the sickness fearing all intercourse with the town. As the practice of Inoculation always divided people into parties, some contending warmly for it, and others as strongly against it, the latter asserting that the advantages pretended were imaginary, and that the Surgeons from views of interest concealed or diminished the true number of deaths occasioned by Inoculation, and magnify'd the number of those who died of the Small Pox in the common way. It was resolved by the Magistrates of the town, to cause a strict and impartial enquiry to be made by the Constables of each ward, who were to give in their returns upon oath; and that the enquiry might be more strictly and impartially conducted, some of the partisans for and against the practice were join'd as assistants to the officers, and accompanied them in their progress through the wards from house to house. Their several returns being received, and summ'd up together, the numbers turned out as follows:

Had the Small Pox in the Common way.		Of these died.	
Whites	Blacks	Whites	Blacks
5059	485	452	62
Received the Distemper by Inoculation.		Of these died.	
Whites	Blacks	Whites	Blacks
1974	139	23	7

"It appeared by this account that the deaths of those inoculated were more in porportion at this time than had been formerly observed, being something more than one in a hundred. The favorers of Inoculation however would not allow that this was owing to any error in the former accounts, but rather to the Inoculating at this time many unfit subjects. Partly through the impatience of people who would not wait the necessary preparation, lest they should take it in the common way; and partly from the importunity of parents prevailing with the surgeons against their judgement and advice to inoculate weak children, labouring under other disorders, because the parents could not immediately move them out of the way of the distemper, and thought they would at least stand a better chance by being inoculated, than in taking the infection as they would probably do, in the common way. The Surgeons and Physicians were also suddenly oppressed with the great hurry of business, which so hasty and general an Inoculation and spreading of the distemper in the common way must occasion, and probably could not so particularly attend to the circumstances of the patients offered for Inoculation.

"Inoculation was first practiced in Boston by Dr. Boylston in 1720. It was not used before in any part of America, and not in Philadelphia till 1730. Some years since an enquiry was made in Philadelphia of the several Surgeons and Physicians who had practised Inoculation, what numbers had been by each inoculated, and what was the success. The result of this enquiry was that upwards of 800 (I forget the exact number) had been inoculated at different times, and that only four of them had died. If this account was true, as I believe it was, the reason of greater success there than had been found in Boston, when the general loss by Inoculation used to be estimated at about one in 100, may probably be from this circumstance, that in Boston they always keep the distemper out as long as they can, so that when it comes, it finds a greater number of adult subjects than in Philadelphia, where since 1730 it has gone through the town once in four or five years, so that the greatest numbers of subjects for Inoculation must be under that age.

"Notwithstanding the now uncontroverted success of Inoculation, it does not seem to make that progress among the common people in America, which was at first expected, *Scruples of conscience* weigh with many, concerning the *lawfulness* of the practice, and if one parent or near relation is against it, the other does not choose to inoculate a child without free consent of all parties, lest in case of a disastrous event, perpetual blame should follow. This *Scruple a sensible Clergy* may in time remove. The *expence* of having the operation performed by a Surgeon, weighs with others, for that has been pretty high in some parts of America; and when a common tradesman or artificer has a number in his family to have the distemper, it amounts to more money than he can well spare. Many of these rather than own the *true motive* for declining Inoculation, join with the scrupulous in their cry against it, and influence others. A small Pamphlet wrote in plain language by some skilful Physician and published, directing what preparations of the body should be used before the Inoculation of children, what precautions to avoid giving the infection at the same time in the common way, and how the operation is to be performed, the incisions dressed, the patient treated, and on the appearance of what symptoms a physician is to be called, might by encouraging parents to inoculate their own children, be a means of removing that objection of the expence, render the practice much more general, and thereby save the lives of thousands.

"B. FRANKLIN
of Philadelphia."

A pamphlet of this description, entitled "Plain Instructions for Inoculation in the Small Pox," was written by Dr. Heberdeen, who, generously, and at his own private expense, printed a very large impression of them, and put them into the hands of Dr. Franklin for gratuitous distribution in America.

NOTE B.

"Dr. Dalhonde's Deposition:—

"*First*.—About twentyfive years ago, I was at Cremona, in Italy, in the French Army, where there were thirteen soldiers upon whom this operation was performed, of which operation four died; six recovered with abundance of trouble and care, being seized with parotidal tumors and a large inflammation of the throat.

"One of them was opened; his diaphragm was found livid, the glands of the pancreas tumefied, and the canal gangrened. On the other three the operation had no effect.

"*Secondly.*—In the year 1701, being in Flanders, there was committed to my care one Captain Hussart, taken ill of the smallpox, who told me in these words, Ten years ago I was inoculated five or six times without that cursed invention taking effect upon me; must I then perish? He was so violently seized that he had several ulcers upon his body, especially one upon his arm, which occasioned a lameness thereof through life.

"*Thirdly.*—At the battle of Almanza in Spain, the smallpox being in the army, two Muscovite soldiers had the operation performed upon them; one recovered, the other received no impression, but six weeks thereafter was seized with a frenzy, and swelled all over his body. They, not calling to mind that the operation had been performed upon him, believed that he had been poisoned. It was ordered by two of the King of Spain's physicians, that the body should be opened. His lungs were found ulcerated; from whence they concluded it was the effect of that corruption, which having infected the lymph did throw itself upon that vital part, which occasioned his sudden death. By me

"DR. LAWRENCE DALHONDE

"BOSTON, July 22nd, 1721

"The above is a true translation from the declaration made in French by Dr. Dalhonde, done at the instance and request of the Selectmen of the town of Boston.

By WILLIAM DOUGLASS
JOSEPH MARION

TIM. CLARK
WILLIAM WELSTED } Just. Pac."

CHAPTER III.

EPIDEMIC SICKNESS AND MORTALITY IN NORTH AMERICA
FROM ITS EARLIEST DISCOVERY BY THE ENGLISH TO
THE YEAR 1800 (CONTINUED).

Yellow Fever.

THE first recorded appearance of what was undoubtedly yellow fever in what is now the United States was in 1647. Our account of it is derived from Winthrop's "History of New England." It led to the first quarantine regulation known to have been made in this country. The disease was at that time most commonly known as the Barbadoes Distemper.

News came to Massachusetts in 1647 that there had been a drought in the Barbadoes,

"followed presently by a great mortality, (whether it were the plague or pestilent fever it killed in three days) that in Barbadoes there died 6,000, and in Christophers, of English and French men, near as many, and in other islands proportionable. The report of this coming to us by a vessel which came from Fayal, the Court published an order, that all vessels which should come from the West Indies, should stay at the Castle and not come on shore, nor put any goods on shore, without license of three of the council, on pain of 100 pounds, nor any to go aboard, etc., on like penalty. The like order was sent to Salem and other Haven towns. But one goodman Dell, of Boston, coming from Christophers in a small pinnace, and being put into Gloucester, and there forbidden to land, and informed of the order of Court yet coming into the Bay and being hailed by the Castle boat, and after by the Captain of the Castle, denied that he came from the West Indies, and having taken in 3 fishermen (whom the Captain knew) who joined with him in the same lie, they were let pass, and so came on shore at Boston, before it was known. But such of the Council as were near assembled the next day, and sent for some of the company,

and upon examination finding that the sickness had been ceased at Christophers 3 months before they came forth, so as there could be no danger of infection in their persons, they gave them liberty to continue on shore, but for cotton and such goods as might retain the infection, they ordered them to be laid in a house remote, and for Dell, he was bound over to the next Court to answer his contempt. About 14 days after came a ship from Malago, which had stayed 9 days at Barbadoes. She was stopped at the Castle. The Captain brought the Master and 2 others to Boston (which he ought not to have done). Four magistrates examined them upon oath and finding they were all well, save two (who had the flux), and no goods from Barbadoes but 3 bags of cotton, which were ordered to be landed etc. at an island, the ship was suffered to come up, but none to come on shore for a week after etc."

In the session of the General Court in the spring of 1649 it is recorded that—

"The Courte dothe thinke meete, that the order, concerning the stoping of West India ships at the Castle should hereby be repealed seeing it hath pleased God to stay the sickness there."

On October 11, 1665, the General Court ordered all vessels coming from England to be quarantined owing to the great plague of London, which was then prevailing, the plague of which Defoe wrote his famous description.

In the summer of 1693 a fleet of English war-ships under command of Sir Francis Wheeler put into Boston Harbor from the Barbadoes. Sewall¹ writes of a number of deaths which occurred from the "Fever" conveyed by the ships:

"Last night Tim Wadsworth's man dies of the Fever of the Fleet, as is supposed, he having been on board and in the Hold of some ship. Town is much startled at it." July 24, "Capt. Turell is buried. Mr. Joseph Dassaett was buried yesterday, being much lamented. Jno Shove and — Saxton died before, all of the Fleet Fever, as is supposed; besides others. The Town is much startled.

¹ Diary, Massachusetts Historical Society's Collections, fifth series, vol. v. pp. 379, 380.

Capt. Byfield speaks of removing his wife and daughters to Bristol. One of the Fleet-Women dies this day, July 24, 1693, at David Johnson's over against the Town-house.

"July 25, Three Carpenters die.

"July 26, Dr. Pemberton dies. Persons are generally under much consternation, which Mr. Willard takes notice of in his prayers."

With the judge's well-known delight in attending sick-beds and funerals this must have been a time of sincere joy to him.

In 1699 Charleston, South Carolina, and Philadelphia were devastated by a most malignant epidemic of yellow fever. It made its appearance in Philadelphia towards the latter part of August, and before it ceased two hundred and twenty deaths had occurred from it. This was a very large proportion of the inhabitants of the city, which was then but seventeen years old. Watson² quotes from a manuscript found among the papers of Isaac Norris, Sr., the following remarks concerning it:

"About the time of harvest proved the hottest summer he had ever experienced. Several persons died in the field with the violence of the heat."

Of the fever he says,—

"This is quite the Barbadoes distemper—they void and vomit blood. There is not a day nor night has passed for several weeks, but we have the account of the death or sickness of some friend or neighbor. It hath been sometimes very sickly, but I never before knew it so mortal as now; nine persons lay dead in one day at the same time; very few recover. All business and trade down. The fall itself was extremely moderate and open."

Thomas Story in his Journal says from six to eight persons died daily of the fever, and adds,—

² Annals of Philadelphia, vol. ii. p. 270.

"Great was the fear that fell upon all flesh. I saw no lofty or airy countenances, nor heard any vain jesting; but every face gathered paleness, and many hearts were humbled."

In Charleston an outbreak of smallpox occurred simultaneously with the yellow fever, and an immense tidal wave swept over the town, so that the terrified inhabitants were so panic-stricken that many permanently moved away from a city which seemed doomed to destruction.

In 1702 yellow fever prevailed in New York. It seems to have been of the utmost malignancy, as few whom it attacked survived the disease. It was popularly termed "the great sickness," and has been called "the American plague." In a population of between six thousand and seven thousand there were five hundred deaths up to the 1st of September, and seventy more in the first week of that month. Its ravages began some time in the summer. The epidemic was so alarming as to cause the Assembly of New York to meet at Jamaica, Long Island, instead of in the city of New York. The disease was supposed to have been imported from St. Thomas, West Indies.

In 1732 New York was visited in the autumn by "a malignant infectious fever," of which seventy persons died in a few weeks.

The "American plague" raged in Charleston, South Carolina, at the same time.

In 1737, 1741, and 1742 yellow fever was prevalent in Virginia.³ Dr. John Mitchell had an opportunity to

Our information concerning its existence is derived from an account of the Yellow Fever which prevailed in Virginia in the years 1737, 1741, and 1742, in a Letter to the late Cadwallader Colden, Governor of New York, from the late John Mitchell, M.D., F.R.S., of London, published in the *American Medical and Philosophical Transactions*, vol. iv., 1814.

see and treat a number of cases, and in some instances to perform autopsies. Dr. Rush refers to these records of Dr. Mitchell's work, which were given to him in manuscript form by Benjamin Franklin, as having afforded him much valuable aid in his own studies of the disease. Dr. Rush sent Dr. Mitchell's manuscript to Dr. Hosack, of New York, and he published it in the *Medical and Philosophical Register* in 1814.

In 1743 New York was invaded by "the bilious plague." Out of a population of between seven and eight thousand, two hundred and seventeen died of it. Cadwallader Colden says it occurred in the portions of the city which were built on swampy ground and near the wharves. This occasioned the first official report of the city's mortality. It read as follows:

"New York, October 24, 1743. By the Mayor of the City. An account of persons buried in the City of New York:

From July 25 to Sept. 25, 1743		From Sept. 25 to Oct. 22	
Grown persons	114	Children	16
Children	51	Grown persons	36
	<hr/>		<hr/>
	165		52
			165
			<hr/>
			217

"And I do find, by the best information I have from the doctors, &c., of this city, that the late distemper is now over.

"JOHN CRUGER, Mayor."

In the year 1762 yellow fever was epidemic in Philadelphia to a very alarming extent, although but slight records of its ravages have descended to us. On September 7, 1793, Dr. John Redman read an account of the epidemic as he remembered it to the College of Physicians of Philadelphia, and in 1865 his narrative was pub-

lished by the College. At the time when he read his account Philadelphia was again suffering from an epidemic of yellow fever of much more serious proportions than the one which he described, and those who listened to the venerable physician must have done so with peculiar interest in the effort to gain some practical points of which to avail themselves in their present state. For this reason, too, the paper dealt very largely with the method of treatment employed in 1762. Dr. Redman treated his first case of yellow fever in that year on the 28th of August, but he modestly suggests that physicians of larger practice, such as "Drs. Bonds," might have seen cases during the preceding week. By the end of September, however, he was visiting as many as eighteen or twenty yellow fever patients daily, exclusive of convalescents. From that date the epidemic declined until the end of October, when it had practically ceased. The epidemic was mostly circumscribed between "Pine street northerly to three or four squares from thence southerly, and extended from Front or Water street to Third or Fourth street westward." Its origin was traced to some "small, back tenements, forming a kind of court, the entrance to which was by two narrow alleys from Front and Pine Streets, and where sailors often had their lodgings, to which a sick sailor from on board a vessel from the Havannah (where it then raged) was brought privately after night, before the vessel had come up to town, to the house of one Leadbetter, where he soon died, and was secretly buried; and I believe Leadbetter, with most of his family and many others in that court, soon after fell a sacrifice to the distemper."

Dr. Redman gives a very vivid picture of the symptoms presented by the victims of the disease. In his treatment he discarded venesection. He says that he had

observed when a pupil of Dr. Kearsley, Sr., during the epidemic of 1741 (2), "when the yellow fever was first introduced here," that his preceptor got better results from the free use of saline purgatives than from any other treatment. He based his treatment of his cases, therefore, on first producing thorough purgation with Glauber's salts, and then sustaining the patient with cordials or wine, accompanied by "an antiemetic, composed of tartar vitriolat gr. x, and a half or whole drop of ol. cinnamon every four hours, in a spoonfull of simple mint or cinnamon water, and two spoonfulls of a strong decoction of snakeroot every two hours." As soon as the gastro-intestinal symptoms were brought under control he induced gentle but free perspiration. From the onset of the case until all vomiting had ceased he kept "an anodyne stomachic plaister of theriaca" applied to the pit of the stomach. He did not use much Peruvian bark (quinine), as he was fearful of its irritating effect upon the stomach. He recommended pediluvia for headache and frequent sponging with vinegar. In order to lessen the danger of contagion he had a bowl of vinegar kept in the patient's room and "a hot iron sometimes put therein," and upon approaching the patient it was his custom to first dip his hand, with which he meant to feel the pulse, in it and rub some of the vinegar on his face. He adds:

"This was the chief preventive or preservative I used, besides great temperance, avoiding to visit patients fasting if possible, and keeping tobacco in my mouth while in the sickroom, not from any expectation of benefit from any quality in the tobacco, except that of preventing my swallowing my saliva. This method I found better than a constant use of preservatives, which after a little time I perceived to affect my mind with such fears as I thought were likely to render me more susceptible of infection than the omission of them, and so discarded them and went fearless tho' not thoughtless

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The epidemic of yellow fever which ravaged the city of Philadelphia in the autumn of 1793 was again studied and written of by the same great observer.⁴ It is to his carefully kept records that we are indebted for much of our knowledge of the epidemic.

Some isolated cases, which Dr. Rush was disposed to consider as sporadic instances of the disease, made their appearance early in August. Finding, however, in conversation with Drs. Foulke and Hodge, that they likewise had seen a number of cases, he became convinced that the fever was becoming epidemic. He attributed its source to a quantity of damaged coffee which had been thrown out on a wharf in the immediate neighborhood of the house of one of his patients and had there decomposed. The reasons that lead him to this conclusion he advances as follows: ⁵

"A quantity of damaged coffee, was exposed at a time (July the 25th) and in a situation (on a wharf, and in a dock) which favored its putrefaction, and exhalation. Its smell was highly putrid and offensive, insomuch that the inhabitants of the houses in Water and Front Streets, who were near it, were obliged in the hottest weather to exclude it, by shutting their doors and windows. Even persons, who only walked along those streets, complained of an intolerable foeter, which upon enquiry was constantly traced to the putrid coffee. It should not surprize us, that this seed, so inoffensive in its natural state, should produce, after its putrefaction, a violent fever. The

⁴ An Account of the Bilious remitting Yellow Fever as it appeared in the City of Philadelphia in the year 1793, by Benjamin Rush, Phila. 1794; also see Minutes of the Proceedings of the Committee appointed on the 14th September, 1793, by the Citizens of Philadelphia, the Northern Liberties and the District of Southwark, to attend to and alleviate the sufferings of the afflicted with the Malignant Fever, prevalent in the City and its vicinity, with an appendix. Philadelphia, 1794.

⁵ An Enquiry into the Origin of the late Epidemic Fever in Philadelphia; in a Letter to Dr. John Redman, from Doctor Benjamin Rush. Philadelphia, 1793.



DR. JAMES HUTCHINSON.



DR. ADAM KUHN.



DR. JOHN REDMAN.

(Reproduced from Morton's "History of the Pennsylvania Hospital.")

records of medicine furnish instances of similar fevers being produced, by the putrefaction of many other vegetable substances. . . . The rapid progress of the fever from Water Street, and the courses through which it travelled into other parts of the city, afford a strong evidence that it was at first propagated chiefly by exhalation from the putrid coffee. It is remarkable that it passed first through those alleys and streets which were in the course of the winds that blew across the dock and wharf where the coffee lay, and that persons were affected at a much greater distance from Water Street by that means, than was afterwards known by means of the contagion which was generated by infected persons.

"Many persons who had worked, or even visited in the neighborhood of the exhalation from the coffee, early in the month of August, were indisposed afterwards with sickness, puking, and yellow sweat, long before the air of Water Street was so much impregnated with the contagion, as to produce such effects, and several patients whom I attended in the yellow fever declared to me, or to their friends, that their indisposition began exactly at the time they inhaled the offensive effluvia of the coffee."

Dr. Rush expressed his opinion to many of his fellow-practitioners and citizens that yellow fever was present in the city in epidemic form. For this warning he was the victim of much ridicule and contempt. However, the governor of Pennsylvania ordered Dr. James Hutchinson, who was "inspector of sickly vessels," to inquire as to whether an epidemic did exist. He wrote to Dr. Rush, who in return told him of a number of instances in which he had seen cases of the disease. On August 28, 1793, Dr. Hutchinson published the following notice in the *American Daily Advertiser*:

"The governor having directed an enquiry to ascertain the facts, respecting the existence of a contagious fever in the city, and the probable means of removing it, Dr. Hutchinson, the physician of the port, has made the following statement upon the subject, in a letter to Nathaniel Falconer, Esq., health-officer of the port of Philadelphia:

"DEAR SIR,

"Immediately on the receipt of your letter, with the enclosure from the governor, stating that a considerable alarm had taken place,

in consequence of the appearance of an infectious disorder in this city, I endeavoured to take measures to ascertain the facts, relative to the existence of such disease; for this purpose I wrote to such of my brethren, who had been called on to attend persons supposed to have been infected, and from their answers as well as from my own observations, I am convinced that a malignant fever has lately made its appearance in Water-street and in Kensington; principally in Water-street between Arch and Race-streets. This part of the city I examined personally on Thursday and Friday last, and found that east of Front-street, and between Arch and Race-streets, sixty-seven persons were diseased, many with the malignant fever. Thirteen of them are since dead, and numbers remain ill. For a while this fever was confined to the above mentioned part of the city, but the disorder is spreading, and now appears in other places, so that several are affected in other parts of Water-street, some in Second-street, some in Vine-street, some in Carter's alley, some in other streets; but in most cases the contagion can be traced to Water-street. Dr. Say, who has attended more in this disease than any other physician, informs me that he first observed it in Kensington, on the fifth or sixth of this month; that he did not perceive it in Water-street, until about the twelfth or fifteenth, but that on its appearance in the latter place, the whole neighborhood was soon affected. He further informs me, that he has at this time upwards of 40 patients, which he supposes to be infected; and that he has lost about 20 patients in this disease since its first appearance. As far as I have been able to ascertain, the number of persons who have died altogether of this fever, amounts to 40 or thereabouts.⁹

"The general opinion both of the medical gentlemen, and of the inhabitants of Water-street is, that the contagion originated from some damaged coffee, or other putrefied vegetable and animal matters; and on enquiry, it appears, that on a few wharfs above Arch-street, there was not only a quantity of damaged coffee, which was extremely offensive, exposed for some time, but also some putrid hides, and other putrid animal and vegetable substances. Should, however, Dr. Say's opinion be well founded, that he observed the disease in Kensington previously to its appearance in Water-street, this cannot be the original cause of the contagion. It does not appear to be an imported disease; for I have learned of no foreigners or sailors that have hitherto been infected, nor has it been found in any lodging houses, but it is, on the contrary, principally confined

⁹ Dr. Rush takes issue with the last statement, expressing his opinion that the number at that time amounted to one hundred and fifty.

to the inhabitants of Water-street, and such as have done business, or had considerable intercourse, with that part of the city. The Dispensary physicians tell me, that out of the large number of sick, now under the care of that charitable institution, they have had but one person afflicted with this fever. In the Pennsylvania Hospital, the disorder does not exist.

"The disease appears differently in different persons; it puts on all the intermediate forms between a mild remittent and the worst species of Typhus Gravior. I enclose you a copy of the proceedings of the College of Physicians, which contains their recommendation of the means for preventing the future progress of the disease.

"I am with great respect

"Your most obedient servant

"J. HUTCHINSON.

"PHILADELPHIA

August 27th, 1793"

Many attributed the disease to contagion brought by the brig "Mary," Captain Rush, from Cape François, but this idea was indignantly combated by Dr. Deveze, who had been a passenger on the vessel. He says that on the arrival of the vessel they had but three cases of illness aboard, "a woman that had miscarried during the voyage, and who afterwards died of dropsy at Bush-Hill, and two ladies now in good health, and who had never the least symptom of the disorder that spread destruction through this city."

Dr. Isaac Cathrall and many others held that the disease had been imported by the French privateer "Sans Culottes," which had just put into Philadelphia with a prize, the "Flora." Her crew was largely made up of men shipped from a vessel she had captured which had been in infected ports, and on landing in Philadelphia they lodged between Mulberry and Sassafras Streets, in a house in which the earliest undoubted cases of the disease developed. Dr. Deveze, however, says "unless we disbelieve the captain and surgeon of this vessel, we must be convinced that neither the privateer, or the two prizes

she brought into port, had any sick on board." Devezé held that the disease originated from atmospheric conditions and was not contagious.

The College of Physicians held a special meeting on the 25th of August to consider the best method of checking the progress of the disease. A committee, consisting of Drs. Rush, Hutchinson, Say, and Wistar, was appointed to draw up some directions for publication in the newspapers as a guide to the people, and it was agreed to hold a meeting every Monday at four P.M. to discuss the progress of the epidemic. The Committee drew up the following directions:

"PHILADELPHIA, August 26, 1793.

"The college of physicians having taken into consideration the malignant and contagious fever that now prevails in this city, have agreed to recommend to their fellow citizens the following means of preventing its progress.

"1st. That all unnecessary intercourse should be avoided with such persons as are infected by it.

"2nd. To place a mark upon the door or window of such houses as have any infected persons in it.

"3rd. To place the persons infected in the centre of large and airy rooms, in beds without curtains, and to pay the strictest regard to cleanliness, by frequently changing their body and bed linen, also by removing, as speedily as possible, all offensive matter from their rooms.

"4th. To provide a large and airy hospital in the neighbourhood of the city, for the reception of such poor persons as cannot be accommodated with the above advantages in private houses.

"5th. To put a stop to the tolling of bells.

"6th. To bury such persons as die of this fever in carriages, and in as private a manner as possible.

"7th. To keep the streets and wharfs of the city as clean as possible. — As the contagion of the disease may be taken into the body and pass out of it, without producing the fever, unless it be rendered active by some occasional cause, the following means should be attended to, to prevent the contagion being excited into action in the body.

"8th. To avoid all fatigue of body and mind.

"9th. To avoid standing or sitting in the sun; also in a current of air, or in the evening air.

"10th. To accommodate the dress to the weather; and to exceed rather in warm than in cool clothing.

"11th. To avoid intemperance, but to use fermented liquors, such as wine, beer, and cyder, in moderation.

"The College conceives *fires* to be very ineffectual, if not dangerous means of checking the progress of this fever. They have reason to place more dependence upon the burning of *gun-powder*. The benefits of *vinegar* and *camphor*, are confined chiefly to infected rooms, and they cannot be used too frequently upon handkerchiefs, or in smelling bottles, by persons whose duty calls them to visit or attend the sick.

"Signed by order of the college

"WILLIAM SHIPPEN, JUN.,

Vice-President.

SAMUEL P. GRIFFITTS,

Secretary."

Carey⁷ gives an amusing account of the results produced by the publication of the advice of the College of Physicians in the newspapers:

"In consequence of this advice the bells were immediately stopped from tolling. The expedience of this measure was obvious; as they had before been almost constantly ringing the whole day, so as to terrify those in health, and drive the sick, as far as the influence of imagination could produce that effect, to their graves. An idea had gone abroad, that the burning of fires in the streets, would have a tendency to purify the air, and arrest the progress of the disorder. The people had, therefore, almost every night large fires lighted at the corners of the streets. The 29th, the Mayor, conformably with the opinion of the college of physicians, published a proclamation, forbidding this practice. As a substitute, many had recourse to the firing of guns, which they imagined was a certain preventive of the disorder. This was carried so far, and attended with such danger, that it was forbidden by an ordinance of the Mayor."

⁷ Brief Account of the Malignant Fever which prevailed in Philadelphia in the year 1793.

Dr. Rush published in the *American Daily Advertiser* of August 29 a reiteration of his opinion that the disease originated from the decomposing coffee. The mayor had ordered its removal from the wharf, but Dr. Foulke claimed that the work was not thoroughly done.

Dr. Rush gives in his "Account" a curious summing up as to how the contagion resulted in the fever, sometimes from the effects of the "*indirect debility*" which it produced, sometimes by "*direct debility*." Thus, under the first heading he mentions cases which occurred in persons, while the contagion was in the air, who became fatigued, or overheated, or who were intemperate in food or drink. He then goes on to mention as producing "*direct debility*," and thus acting as exciting causes of the disease, fear, grief, cold, sleep, and immoderate evacuations.

The premonitory symptoms of the fever were "costiveness, a dull pain in the right side, defect of appetite, flatulency, perverted taste, heat in the stomach, giddiness or pain in the head, a dull — watery — brilliant, yellow or red eye, dim and imperfect vision, a hoarseness or slight sorethroat, low spirits, or unusual vivacity, a moisture on the hands, a disposition to sweat at nights, or after moderate exercise, or a sudden suppression of night sweats." These symptoms lasted over a period of several days. Sometimes they were absent, the onset being sudden. When the disease was fully developed, Dr. Rush expatiates on the great difference in the countenance from that of a person suffering from an ordinary "bilious fever." He speaks particularly of the congestion of the eyes, or their jaundiced appearance. Dr. Rush has left us the most vivid and interesting account of all the various symptoms which manifested themselves in the many patients who were under his care. He analyzes

these and points out how difficult the diagnosis was in many of them. Persons of all ages were attacked by the disease, but it was most common in those between the ages of fourteen and forty. Dr. Rush saw a case in a child of ten weeks. Men were more frequently the victims than women. Dr. Rush remarked that the refugees from the French West Indies, of whom there were large numbers in the city, uniformly escaped. Dr. Lining had previously pointed out the fact that negroes were what we would now call immune from the disease. Dr. Rush called the attention of the public to that fact, and this led to the insertion of the following notice in the *Mail*, addressed to Mr. Claypole, its printer:

"SIR

"It is with peculiar satisfaction that I communicate to the public, through your paper, that the *African Society*, touched with the distresses which arise from the present dangerous disorder, have voluntarily undertaken to furnish nurses to attend the afflicted; and that by applying to Absalom Jones and William Gray, both members of that society, they may be supplied

"MATTH. CLARKSON,

"Mayor,

"September 6th
1793"

Dr. Rush, however, had shortly to announce that this observation by Dr. Lining was at fault, at least as regarded the negroes of Philadelphia, 'as many of them while performing their labors as nurses fell ill of the disease and died with it. Dr. Rush thought that butchers, house-painters, grave-diggers, and scavengers were exempt from the disease in greater proportion than those who followed other occupations. The weather throughout the duration of the epidemic was very hot and sultry. No rain fell from the 25th of August to the 15th of October, with the exception of a few drops on the 9th of Sep-

tember and the 12th of October, not sufficient, Dr. Rush says, to lay the dust.

Dr. Rush saw cases of the fever in persons whom he had previously had in his care during the epidemic of 1762.

The epidemic increased at a rapid rate during the latter part of August and the first part of September. This led to the publication of the following notice in the newspapers:⁸

"TO THE BENEVOLENT CITIZENS.

"Those of the overseers of the poor, who attend to the care of the *unfortunate now labouring under the prevalent malignant disorder are almost overcome with the fatigue which they undergoe, and require immediate assistance. This, it is hoped, may be found among the benevolent citizens, who actuated by a willingness to contribute their aid in the present distress, will offer themselves as volunteers to support the active overseers in the discharge of what they have undertaken. For which purpose those who are thus humanely disposed, are requested to apply to the Mayor, who will point out to them how they may be useful.*

"September 10th 1793."

At a largely attended meeting at the City Hall on the 12th of September the following persons volunteered to assist the overseers,—namely, Samuel Wetherill, Israel Israel, Thomas Wistar, Andrew Adgate, Caleb Lownes, Henry Deforest, Thomas Peters, Joseph Inskeep, Stephen Girard, and John Mason. They were deputed to investigate the condition of the sick poor and report on the measures best adapted for their relief.

A large hospital for the accommodation of the sick was fitted up in the mansion of William Hamilton, who at that time was abroad. His estate was known as Bush Hill, and composed the land which would now be bounded

⁸ *Minutes of the Proceedings of the Committee appointed on the 14th of September, 1793, etc. Philadelphia, 1794.*

approximately by Vine Street, Fairmount Avenue, Twelfth and Nineteenth Streets. A large barn and stable as well as the mansion were used for hospital purposes. The property was then about a mile from the city. The tenants who occupied it in the absence of Mr. Hamilton made some objection, but on August 31 it was taken possession of by the city authorities. Patients suffering from yellow fever had hitherto been taken to the Circus, which had been used as an exhibition place by Mr. Ricketts, the equestrian performer. There were four patients in the Circus who were removed to Bush Hill.

Israel Israel, Thomas Wistar, and Caleb Lownes were appointed a committee to look into the management of this Bush Hill Hospital. They reported at a meeting of the citizens on September 14, 1793, "that the Hospital is without order or arrangement, far from being clean, and stands in immediate need of several qualified persons to begin and establish the necessary arrangements. There are five or six female attendants; but none qualified for the proper management of the sick. It is attended by four Physicians, viz. Doctors Cathral, Physick, Anan, and Leib,—the latter is indisposed and unable to attend. That there are immediately wanted, a person qualified to arrange and manage a Hospital, as steward, a person qualified to act as barber and bleeder, and eight nurses." The meeting then appointed a citizens' committee to take the necessary measures to rehabilitate the hospital and to furnish relief to the sick. It consisted of

Matthew Clarkson, the mayor of the city.

Samuel Wetherill,

Jon. D. Sergeant,

Caleb Lownes,

John Connelly,

Jacob Weaver,

John McCulloch,

Israel Israel,	Joseph Inskip,
Thomas Wistar,	William Robinson,
Thomas Harrison,	Jacob Whitman,
Stephen Girard,	Henry Deforest,
Joseph Russell,	John Letchworth,
Andrew Adgate,	James Swain,
Mathew Carey,	James Sharswood,
Thomas Savery,	John Haworth,
William Clifton,	James Kerr,
Samuel Bengé,	Peter Helm.

On September 16 the newly-appointed managers of Bush Hill reported on the condition of affairs which they found on taking charge of and investigating the management of that hospital. Carey says,—

“A profligate, abandoned set of nurses and attendants (hardly any of good character could at that time be procured,) rioted on the provisions and comforts prepared for the sick, who (unless at the hours when the doctors attended) were left almost entirely destitute of every assistance. The sick, the dying, and the dead, were indiscriminately mingled together. The ordure, and other evacuations of the sick, were allowed to remain in the most offensive state imaginable, not the smallest appearance of order or regularity existed. It was, in fact, a great human slaughter-house, where numerous victims were immolated at the altar of riot and intemperance. No wonder, then, that a general dread of the place prevailed through the city, and that a removal to it was considered as the seal of death. In consequence, there were various instances of sick persons locking their rooms, and resisting every attempt to carry them away. At length, the poor were so much afraid of being sent to Bushhill, that they would not acknowledge their illness, until it was no longer possible to conceal it.”

They proceeded promptly to introduce order into this chaos, and soon succeeded in overcoming the popular prejudice against the hospital so that people desired to be taken there as soon as their illness developed, as they knew they would be suitably cared for.

Stephen Girard and Peter Helm subsequently volunteered to act as superintendents of the hospital, and too

much credit can never be given them for the enormous labors they so charitably performed. Dr. Deveze offered his services as a physician, and was assigned to medical duty at the hospital. Nine female and ten male nurses were employed in the wards. Drs. Physick, Cathral, Leib, and Annan made the following propositions as regarded their services: 1st, that the physicians would attend the hospital at eleven A.M. daily; 2d, that they should be paid two guineas a visit; 3d, Mr. Graham and two assistants should be appointed apothecaries; and, 4th, that they should have the entire direction of the hospital. To this the managers agreed with the exception that they reserved a room for the use of Dr. Deveze. Subsequently there appears to have been much complaint of irregularity of attendance on the part of the physicians, which resulted in the division of the hospital into three parts,—one under the supervision of Dr. Physick, another under that of Dr. Deveze, and the third under that of Dr. Leib. For some reason this caused dissatisfaction among the physicians, and they all resigned except Dr. Deveze. Dr. Benjamin Duffield volunteered to help him out and was promptly appointed.

Dr. Jean Deveze was a French army surgeon who was chief physician to the French military hospital in Philadelphia. He has left us a most interesting account of his experience during the epidemic.⁹

Mathew Carey's description of the terrible condition of Philadelphia during this visitation is most vivid:

⁹ An Enquiry into, and Observations upon the Cause and Effects of the Epidemic Disease, which raged in Philadelphia from the Month of August till toward the middle of December, 1793. By Jean Deveze, Master in Surgery, from Cape Francais, Physician of the Hospital at Bush-Hill, Surgeon-Major and Principal Physician of the Military Hospital established by the French Republic at Philadelphia, 1794.

"Most of those who could by any means make it convenient, fled from the city. Of those who remained, many shut themselves up in their houses, being afraid to walk the streets. The smoke of tobacco being regarded as a preventive, many persons, even women and small boys, had segars almost constantly in their mouths. Others, placing full confidence in garlic, chewed it almost the whole day; some kept it in their pockets and shoes. Many were afraid to allow the barbers or hair-dressers to come near them having shaved the dead, and many having engaged as bleeders. Some who carried their caution pretty far, bought lancets for themselves, not daring to allow themselves to be bled with the lancets of the bleeders. Many houses were scarcely a moment in the day, free from the smell of gunpowder, burned tobacco, nitre, sprinkled vinegar, &c. Some of the Churches were almost deserted, and others wholly closed. The coffee-house was shut up, as was the city library, and most of the public offices—three, out of the four, daily papers were discontinued, as were some of the others. Many devoted no small portion of their time to purifying, scouring, and whitewashing their rooms. Those who ventured abroad, had handkerchiefs or sponges, impregnated with vinegar or camphor, at their noses, or smelling-bottles full of thieves vinegar.¹⁰ Others carried pieces of tarred rope in their hands or pockets, or camphor bags tied round their necks. The corpses of the most respectable citizens, even of those who had not died of the epidemic were carried to the grave on the shafts of a chair, the horse driven by a negro, unattended by a friend or relation, and without any sort of ceremony. People uniformly and hastily shifted their course at the sight of a hearse coming towards them. Many never walked on the foot-path, but went into the middle of the street, to avoid being infected in passing houses wherein people had died. Acquaintances and friends avoided each other in the streets, and only signified their regard by a cold nod. The old custom of shaking hands, fell into such general disuse, that many shrunk back with affright at even the offer of the hand. A person with crape or any appearance of mourning, was shunned like a leper. And many valued themselves highly on the skill and address with which they got to windward of every person whom they met."

¹⁰ Thieves' vinegar, or the vinegar of the four thieves, was a preparation the composition of which was said to have been discovered by four young men during the plague at Marseilles. It was said to have rendered them immune from the disease and enabled them to rob the sick while pretending to serve as nurses.

This terror gave rise to the greatest cruelty and lack of feeling. Many persons were abandoned by their nearest relatives and friends. Bodies were frequently found lying in houses which had been deserted by all other dwellers in them. Women died in childbirth because no one would render them assistance in their hour of need. Wives deserted their husbands, fathers their children, and children their parents. Carey bears testimony, however, to the noble behavior of some citizens, whose names should be forever perpetuated on a roll of honor. He particularly praises Joseph Inskeep, saying, "Numerous are the instances of men restored, by his kind cares and attention, to their families, from the very jaws of death. In various cases has he been obliged to put dead bodies into coffins, when the relations had fled from the mournful and dangerous office." He makes honorable mention of Andrew Adgate, Job Jones, James Wilson, Jacob Tomkins, and Daniel Offley. The clergy in many instances showed the noblest spirit. Carey refers to the labors of the following ministers who remained at their posts,—viz., Messrs. Fleming, Graessel, Winkhouse, Henry Helmuth, C. V. Keating, Ustick, and Dickens. Other persons who worked and spent their money liberally to aid their unfortunate fellow-citizens were Stephen Girard, Samuel Robeson, Thomas Allibone, Lambert Wilmer, Levi Hollingsworth, John Barker, Hannah Paine, John Hutchinson, Magnus Miller, Samuel Coates, and John Connelly.

Dr. Rush also gives us an insight into the awful horror that fell over the city in those terrible days. He writes as follows:

"A cheerful countenance was scarcely to be seen in the city for six weeks. I recollect once in entering the house of a poor man, to have met a child of two years old that smiled in my face. I

was strangely affected with this sight (so discordant to my feelings and the state of the city) before I recollected the age and ignorance of the child. I was confined the next day by an attack of the fever, and was sorry to hear upon my recovery, that the father and mother of this little creature died, a few days after my last visit to them.

"The streets everywhere discovered marks of the distress that pervaded the city. More than one half the houses were shut up, although not more than one third of the inhabitants had fled into the country. In walking for many hundred yards, few persons were met, except such as were in quest of a physician, a nurse, a bleeder, or the men who buried the dead. The hearse alone kept up the remembrance of carriages or carts in the streets. Funeral processions were laid aside. A black man, leading or driving a horse, with a corpse on a pair of chair wheels, with now and then a half dozen relations and friends following at a distance from it, met the eye in most of the streets of the city at every hour of the day, while the noise of the same wheels passing slowly over the pavements, kept alive anguish and fear in the sick and well, every hour of the night."

Watson ¹¹ presents us with the same grewsome picture :

"Look then in which way you would through the streets, and you saw the exposed coffins on chair-wheels, either in quick motion, or you saw the wheels drawn before the houses to receive their pestilential charge. Then family, friends, or mourners scarcely ever accompanied them; and no coffins were ordered to please the eye; but coarse stained wood, of hasty fabric, received them all. The graves were not dug singly, but pits, which might receive many before entire filling up, were opened. In the streets you met no cheerful, heedless faces, but pensive downcast eyes and hurried steps, hastening to the necessary calls of the sick."

The fever spared no particular class of society. Ten physicians, Drs. Hutchinson, Morris, Linn, Pennington, Dodds, Johnson, Glentworth, Phile, Graham, and Green, died of yellow fever during the six weeks of its prevalence. Almost every one of the rest of the profession that remained suffered from an attack of the disease. Many

¹¹ Annals of Philadelphia.



DR. BENJAMIN RUSH.

(From Morton's "History of the Pennsylvania Hospital.")

clergymen also fell victims to it. Of course its ravages were worst among the poor, who lived in unhygienic conditions.

The French refugees, who were supposed to be responsible for its introduction, were the only people who manifested the slightest immunity to it. It is probable that most of them had previously had the disease when in their Southern homes.

The citizens who fled Philadelphia hoping to escape the contagion in many instances fared hard. New York placed guards at all points by which travellers from Philadelphia would seek entry to the city, and would let none of them in. Citizens were ordered to report all strangers coming to their houses who might recently have left Philadelphia. Merchandise coming from Philadelphia was ordered to be fumigated and exposed to the air for forty-eight hours. Trenton and Lamberton took similar measures. The Baltimoreans resolved in town-meeting that none of them would receive in their houses persons coming from Philadelphia without a certificate from the health officer. Resolutions like these, and proclaiming rigid quarantine against the infected city, were passed by almost all the cities and towns in the Union which had any habitual intercourse with Philadelphia. Many instances are related of the misfortunes which befell the fleeing citizen. How he was compelled to wander about the roads all night, as none would receive him, or how he nearly starved, as he could get no one to give him food.

The treatment of yellow fever in those days was a subject concerning which there had been much dispute, and the management of the disease in this particular epidemic gave rise to one of the most furious contests that ever raged among the members of the medical profession.

In Dr. Rush's book he narrates how he tried many methods of treatment without success until, in reading a manuscript letter of Dr. John Mitchell, of Virginia, which had been put in his hands by Benjamin Franklin, he was struck by the method of treatment pursued by Dr. Mitchell in the yellow fever of 1741 in Virginia. This was to use "lenitive cholagogue purgatives," and appeared to Dr. Rush as an excellent idea, but he says he thought copious bloodletting should be added. He proceeded to put his treatment into immediate use. He gave one patient eighty grains of calomel, with "rather more" rhubarb and jalap. The patient recovered, and Dr. Rush was convinced he had struck the proper method of treatment for all cases of yellow fever. He was very successful with many patients, and says, "The credit it acquired brought me an immense accession of business." He mentions the following physicians who promptly adopted it: Drs. Griffith, Say, Pennington, Leib, Porter, Annan, Woodhouse, and Mease.

Dr. Rush outlined his plan of treatment to be calomel purges in very large dose, combined with rhubarb and jalap, bloodletting, cool air, cold drinks, low diet, and applications of cold water to the body. He quotes from his note-book of September 10, "Thank God out of one hundred patients, whom I have visited or prescribed for this day, I have lost none."

The views of Dr. Rush, however, provoked the greatest opposition among other medical men. It is hard to understand now the anger with which they attacked him. The foremost of his foes was Dr. Adam Kuhn, who published his own method of treatment, over his initials, in the *General Advertiser* of September 11. He placed his reliance on bark, chamomile tea, and cold affusions, with wine to sustain the patient's strength.

Now began a vigorous newspaper war between the advocates of the various methods. Alexander Hamilton, then Secretary of the Treasury, wrote a letter commending in the highest terms Dr. Stevens, who had treated him. He advised all wishing knowledge on the subject to consult Dr. Stevens. Dr. Stevens promptly wrote a letter to the *Federal Gazette* describing his treatment. These were followed by letters from Dr. Currie, Dr. Porter, Dr. Annan, and Dr. Mease, and a host of anonymous scribes.

Dr. Rush seems to have come out the victor as far as public opinion was concerned. He certainly treated more cases than any man in Philadelphia. He writes,—

“Between the eighth and the 15th of September I visited and prescribed for between an hundred and an hundred and twenty patients a day. Several of my pupils visited a fourth or fifth part of that number. For a while we refused no calls. In the short intervals of business which I spent at my meals, my house was filled with patients, chiefly the poor, waiting for advice. For many weeks I seldom ate without prescribing for numbers as I sat at my table. To assist me at these times, as well as in the night, Mr. Stall, Mr. Fisher, and Mr. Coxe, accepted rooms in my house, and became members of my family. Their labours now had no remission.”

In November the fever had partially disappeared, and in response to a request from Governor Thomas Mifflin the Committee of citizens made him a full report on the subject. It appears from it that from the 1st of August to the 9th of November there had been four thousand and thirty interments in the burial-grounds of the city, but as Christ Church and St. Peter's Church were the only two cemeteries which kept records as to the cause of death in the burials within them, there was no accurate means of determining just how many deaths were due to yellow fever. One hundred and ninety-one orphans

had been cared for by the Committee, and they had disbursed twenty thousand dollars in alleviating the sufferings of the poor. They had received donations of money amounting to twenty-two thousand dollars, besides much in the way of food and clothing. Dr. Benjamin Duffield was rewarded with a present of five hundred dollars, and Dr. Deveze with a present of fifteen hundred dollars.

The Committee agreed after the epidemic was over to allow the Bush Hill Hospital to be used by the French government as a hospital for a number of sick and wounded French soldiers who had arrived from the West Indies, at a rate of eight shillings a day for each patient and four dollars for each interment. Four members of the committee died during its period of existence of yellow fever,—namely, Andrew Adgate, Jonathan D. Sergeant, Joseph Inskeep, and Daniel Offley.

In 1794 yellow fever again appeared in Philadelphia. It is once more Dr. Rush¹² who has transmitted to us an account of the outbreak. Dr. Rush says,—

“From the inflammatory complexion of the diseases of the spring, and of the beginning of June, I expected the fevers of the summer and autumn would be of a violent and malignant nature. I was the more disposed to entertain this view from observing the stagnating filth of the gutters of our city; for the citizens of Philadelphia having an interest in rejecting the proofs of the generation of the epidemic of 1793 in their city, had neglected to introduce the regulations which were necessary to prevent the production of a similar fever from domestic putrefaction.”

A few suspicious cases occurred in June and July, and in August the disease numbered many victims. On the 12th of August the citizens of Philadelphia learned that

¹² An Account of the Bilious Remitting and Intermitting Yellow Fever, as it appeared in Philadelphia in the year 1794. By Benjamin Rush.

yellow fever was epidemic in Baltimore, and Dr. Rush attended a patient who brought the disease with him from that city. On the 2d of September Dr. Rush wrote to the mayor stating that yellow fever was present in Philadelphia in epidemic form. This brought much abuse on the doctor's head. One of his friends told him he had heard it proposed in a public company to drum him out of the city. He himself says,—

"A charge of insanity which had been made against me the year before was now revived, and propagated with so much confidence, that one of my patients who had believed it, expressed her surprise at perceiving no deviation from my ordinary manner, in a sick-room."

Many physicians of the city joined in the attack, as he says they were attending cases of the disease but did not recognize them. Drs. Physick and Dewees rallied manfully, however, to his support.

The Board of Health took an active part in the opposition to Dr. Rush. They refused to publish the epidemic nature of the disease, or to take any steps towards reopening Bush Hill Hospital. The Committee invited all the physicians of the city, except Drs. Rush, Physick, and Dewees, to appear before them at the City Hall. Those who attended united in declaring that there was no reason to apprehend an outbreak of yellow fever in Philadelphia. Their statements were published, and appended to them was an invitation to all citizens to meet at the City Hall to debate what plans should be adopted to prevent the disease entering the city from Baltimore.

It was not long, however, before most physicians were brought to acknowledge that the disease was really in their midst. It was not so severe in type nor did it prevail to nearly the extent of the epidemic of the preceding year.

Dr. Rush attended upwards of two hundred cases between the 12th of June, 1794, and the 1st of April, 1795.

The winter of 1794-95 was an unusually mild one, and this is the reason cases manifested themselves throughout the whole winter.

The chief interest to us at the present day as regards the yellow fever of 1794 is in the violent differences in opinion which it occasioned between the professional men of the city. These were divided into two camps, one consisting of the followers of Dr. Rush, who believed yellow fever to prevail in the city in epidemic form, the other consisting of the followers of Dr. Kuhn, who held that there was no reason for alarm. Dr. Rush called his opponents the Kuneans. He claimed that their diagnoses were wrong, and gives us a list of the various names by which what were in reality cases of yellow fever were miscalled, thus: "1. A common intermittent. 2. A bilious fever. 3. An inflammatory remitting fever. 4. A putrid fever. 5. A nervous fever. 6. A dropsy of the brain. 7. A lethargy. 8. Pleurisy. 9. Gout. 10. Rheumatism. 11. Colic. 12. Dysentery, and 13. Sore throat." In reply to the question why he was more anxious than other physicians to have his fellow-citizens believe in the existence of yellow fever, he says,—

"That I consider the making the disease public, as soon as it appears in a city, and the calling it by its common and vulgar name, to be a duty, indirectly included in that divine precept which forbids the taking away a human life."

He accused his opponents of desiring to conceal the existence of the epidemic because of servility to wealth, "which disposes physicians to deny the existence of pestilential fevers in cities," and because they had all been obliged to adopt the method of treatment of fevers which he had advocated, contrary to their views, in the epidemic

of the preceding year, and were unwilling to allow that it was really yellow fever that yielded so readily to that regimen, and lastly, because its existence would support the view of Dr. Rush that the disease could be indigenous in Philadelphia and was not of necessity imported in ships.

Yellow fever attacked New Haven, Connecticut, in the summer of 1794.¹³ In the early part of June Captain Truman arrived from Martinico in a sloop which was said to have been infected by cases of the disease. It moored at Long Wharf, and in that neighborhood the first cases of the disease appeared. There were in all sixty-four cases.

New York suffered from a severe epidemic of yellow fever in 1795. The summer was excessively hot and cases of enteric disease were common.¹⁴ On the 19th of July a ship, the "Zephyr," arrived at New York from Port-au-Prince. A boy in her crew died soon after she came into port, and Dr. Malachi Treat, the health officer, boarded the vessel and viewed the corpse. He developed the fever and died on the 29th of July. Webster claims that there had been cases in the city previous to the arrival of the "Zephyr," but there was a considerable doubt as regards the correctness of the diagnosis of the suspected cases, whereas there was no reason to doubt its correctness in the cases which ensued on the arrival of that ship.

The ship "William," which lay at anchor near the

¹³ Two Letters on Yellow Fever as it appeared in New Haven, Conn., in 1794. Webster's Collection of Papers on the subject of Bilious Fevers.

¹⁴ An Account of the Epidemic Yellow Fever as it appeared in the City of New York in the year 1795, by Valentine Seaman, M.D., New York, 1796.

"Zephyr," soon had cases of the disease develop among her crew, and it was not long before the disease was epidemic in Water and Cherry Streets, and the low ground lying between those streets and Chatham and George Streets. It was particularly violent near Peck Slip. Most of those who contracted the disease were strangers who had lately come to the city. A popular idea prevailed that alcohol was a prophylactic, and Dr. G. H. Smith¹⁵ says,—

"The dreadful consequences which a belief of this sort produced, were numerous, and shocking to the last degree. The fear of death, so active in ignorant minds, when once aroused; idleness, the parent of every vice, and listlessness, the consequence of want of employment; all conspired with this pernicious doctrine to effect the ruin of numbers. Never, I believe, was drunkenness so common."

Many citizens fled the city and business was greatly depressed. A proclamation was issued by the mayor of Philadelphia prohibiting communication with New York during the continuance of the fever. This did not, however, interfere with the Philadelphians sending seven thousand dollars to the mayor of New York to be used for the comfort of the sick poor. The fever gradually subsided in the autumn. The total number of deaths by the 6th of October was five hundred and twenty-five.

Yellow fever raged in Norfolk, Virginia, in the summer of 1795.¹⁶ It was at its height in August and September. There were two hundred and twenty deaths from it in six weeks.

In 1797 yellow fever prevailed largely in Philadelphia, Norfolk, and Charleston. In Baltimore the epidemic

¹⁵ Letters to Dr. Buell.

¹⁶ Letter of Dr. Ramsey, in Webster's Collection of Papers on the Subject of Bilious Fevers.

assumed great virulence. A few scattered cases appeared in June and July, and it was not until the middle of September that the disease really could be called epidemic. On the 7th of September a frigate was launched, and this, Webster says, "collected many people together, who were exposed to a hot sun and fatigue, which spread the disease." The total number of burials in the city from August 1 to October 29 was five hundred and forty-five.

In Philadelphia in 1797 there were a few sporadic cases in June; in July the epidemic was fully established. There was the usual division of opinion as to whether the disease was engendered by some filthy quarter in the city or whether it was imported. A ship, the "Arethusa," had arrived from Havana and Jamaica on the 23d of July, and it was held by many that it was introduced by this ship; another party held that it originated in a ship, the "Navigation," from Marseilles. It raged in the district bounded by South Street, Front Street, Spruce Street, and the Delaware River. Governor Mifflin issued a proclamation forbidding communication with this part of the city. Barricades were erected at the points where streets entered it and yellow flags placed to warn people. A fine of three hundred dollars was imposed on any one who should break this quarantine, either by entering or coming out of the infected area, unless by permit. Inspectors were appointed with almost unlimited power to enter houses and remove the sick to the fever hospital. Thousands of people fled from the city, commerce came to an almost complete standstill. It is interesting to find Jean Deveze, the French doctor who had been physician at Bush Hill Hospital, protesting against the measures taken by those in authority, and assuring the public that nothing was gained and much harm was done by the

alarm with which proclamations and the publication of lists of those sick or dead of the fever filled the people. Nevertheless the alarm continued. No services were held in the churches. Philadelphia was then the capital of the United States, but the government officials hastened to move their offices to places outside the city. A city of tents sprang up on the banks of the Schuylkill.

On August 15 the College of Physicians received a letter from the governor requesting their opinion as to how the calamity overhanging the city could best be averted, and on the 22d of August the Board of Health preferred a similar request, and asked them to publish such advice "as would tend to check the progress of the contagion."¹⁷ These requests were promptly complied with. Again on October 30 the governor wrote, desirous of learning how to purify the city from "latent contagion." On the 7th of November the College replied recommending cleanliness of streets and dwellings, and the thorough fumigation and ventilation of infected houses. They thought the Board of Health ought to consist of five persons, two of whom should be physicians, and that a strict quarantine should be enforced on vessels from suspected ports during the heated season. This document reiterates the former statement of the College, that in their opinion yellow fever is an imported disease. It was signed by John Redman, President, and Thomas C. James, Secretary.

The physicians of the city became divided into two groups, those who followed the method of treatment of yellow fever pursued by Benjamin Rush and those who

¹⁷ Facts and Observations relative to the Nature and Origin of the Pestilential Fever, which prevailed in the City of Philadelphia, in 1793, 1797, and 1798. By the College of Physicians of Philadelphia, 1799.

were adherents of William Currie. Rush held that the disease was of domestic origin, Currie held that it was imported from southern ports. Rush believed in a course of mercurials and copious bleeding, the followers of Currie disapproved of bleeding as having a tendency to weaken the patient. Their disciples were not slow in taking the quarrel into the newspapers, and the latter were soon filled with the bitterest and most savage attacks on the leaders and prominent men of the two parties. It even led to personal encounters. The *United States Gazette* published a very severe article on Dr. Rush, which he supposed to have been written by a Dr. Ross. John Rush, son of Benjamin, wrote a letter to Dr. Ross, and the latter called him some unpleasant names, whereupon John Rush caned him. Dr. Ross promptly challenged Dr. Rush to a duel, as he held him responsible for his son's action. Rush refused the challenge and published all the correspondence on the matter in the newspapers. Many lawsuits also arose from the libellous articles which appeared on both sides. The epidemic disappeared with the frost, having carried off one thousand people, but the bitter feelings engendered by the controversy long left their traces in the professional and social relations of the citizens. One result of the controversy was the founding of the "Academy of Medicine of Philadelphia" by the adherents of Dr. Rush; the latter resigned from the College of Physicians, but protested that he was still a well-wisher to that body. Dr. Physick was the first president of the new society.

In the summer of 1797 Providence, Rhode Island, was likewise visited by yellow fever in epidemic form. The fever was introduced by the schooner "Betsey," which arrived in Providence on the 8th of August after a voy-

age of twenty-four days from the Mole St. Nicholas. Fifty-six families were infected by the fever. The exact mortality is not known.

In 1798 Philadelphia was again ravaged by yellow fever. The Academy of Medicine announced its opinion that the disease resulted from the state of the atmosphere and other unhygienic conditions. The College of Physicians held that it was imported. About the end of June a great influx of persons from the West Indies occurred. The British had shortly before evacuated Port-au-Prince and a number of other places held by them. On the 5th of July no less than eight vessels arrived in Philadelphia from various West Indian ports, bringing two hundred and twenty-seven passengers and one hundred and sixteen seamen. On the 8th of July the ship "Deborah" arrived, having on board a number of infected persons, some of whom were smuggled ashore in spite of the quarantine to which the vessel was subjected. The epidemic began in the locality to which these persons were taken. Later two other ships, the "Ariel" and the "Aurora," arrived from the West Indies bearing infected persons, to contact with whom some of the cases which subsequently developed could be traced.

On the 6th of August there were known to be at least twenty-six cases of yellow fever in the city, and at a meeting of the College of Physicians held on that day it was resolved,—

"That the College inform the Board of Health, that a malignant contagious fever has made its appearance in Water-street, between Walnut and Spruce-streets, and in the vicinity thereof; and that the College recommended to the Board of Health to procure the removal of all the families that are situated between Walnut and Spruce-streets, and the east side of Front street and the river; and to have all the shipping, lying between Walnut and Spruce-streets removed to a proper distance from the city."

The Board of Health published a proclamation in compliance with this request, but instead of removing the shipping "to a proper distance from the city," they merely ordered the ships from the wharves at which they were lying, whereupon they all moved to other wharves and thus spread the contagion.

The Academy of Medicine met on the 8th of August and drew up a statement to the Board of Health, in which they proclaimed their belief that the disease was of domestic origin, and advised,—

"1st. The removal of all the families from those parts of the city where the disease, from the contamination of the atmosphere, appears chiefly to exist, and the preventing those parts being visited by the citizens.

"2ndly. The removal of all ships and putrid articles of commerce from the wharves and stores of the city.

"3rdly. The cleaning of the docks, wharves, yards, and cellars; also the washing of the gutters every day, and of the streets and alleys three times a week, by means of pumps and fire engines.

"4thly. The appointment of a sufficient number of physicians to take care of such of the poor as may be affected with the fever.

"5thly. Publicly to advise the citizens to avoid all the usual exciting causes of fever, such as intemperance, fatigue, excessive heat, the night air, all violent and debilitating passions of the mind.

"6thly. To advise them, in every case of indisposition, however slight in appearance, to apply immediately for medical aid."

Alarm now spread throughout the city. Every one recalled the terrible days of 1793 and 1797, and another exodus promptly began. It is estimated that forty thousand persons fled from the city, a number representing from three-fourths to five-sixths of the entire population. The various United States government offices were removed to Germantown, Trenton, or Chester. Three newspapers ceased to be published and a fourth moved to Germantown. The people in neighboring places manifested much less uneasiness at receiving refugees than at the time of previous epidemics, as the idea was now

prevalent that it could not be conveyed into other places except by persons actually sick with the disease. The City Hospital was opened for the reception of the sick, and public notice given that patients would be admitted on the certificate of any regular practising physician, the city furnishing carriages in which the sick might be brought to the hospital. At the hospital burying-ground graves were kept ready, with grave-diggers constantly at hand day and night.

"When a person died, it was only necessary to make application at the Health office, where hearses and coffins were in readiness to convey the corpse to the grave."¹⁸

Drs. Philip Syng Physick and Samuel Cooper were appointed resident physicians at the City Hospital. Free medical advice and medicines were furnished the poor by the appointment of physicians for different districts. The northern part of the city and Northern Liberties were placed in charge of Dr. Francis Bowes Sayre, Dr. James Mease, and Dr. Kinlaid; the southern part of the city and Southwark were assigned to Dr. John Church and Dr. Benjamin Duffield; and the poor in the city proper were attended by Dr. Samuel Duffield.

The citizens who had witnessed the acrimonious and undignified squabbles and fights which had been indulged in by the members of the medical profession on previous visitations of the fever felt a not unnatural lack of confidence in the medical skill of the physicians and hesitated to avail themselves of the medical aid that they were so earnestly advised to resort to. They recalled how one part of the profession had accused the other of bleeding and purging its patients to death, and how the

¹⁸ Condie and Folwell, *Yellow Fever of 1798*.

followers of Dr. Rush had retorted that their opponents had merely allowed their patients to die through lack of professional knowledge. This led also to a great reluctance on the part of those sick of the fever to be taken to the City Hospital. All this, too, in spite of the fact that Dr. Condie says "it was truly agreeable to observe the harmony that prevailed among the physicians in this period of sickness and distress." The memory of former lack of harmony was too recent.

So general did this desire on the part of the citizens to avoid availing themselves of medical aid become, that on the 13th of August the Board of Health issued the following:

"The Board of Managers of the Marine and City Hospitals have observed, with deep regret, the fatal consequences of delay in the applications for medical aid, to persons afflicted with the prevailing malignant fever, and that the removal of patients to the City Hospital, in many cases, is procrastinated until they are literally sent there to die. They recommend, in the most earnest manner, the early removal of patients to the City Hospital, where, the public may be assured, that every possible comfort and accommodation will be afforded. The public are informed, that the care of the patients, and management of the City Hospital, is committed to Dr. Physick and Dr. Cooper, who reside constantly there, and whose professional eminence, it is presumed, will ensure a just confidence.

"An apothecary also resides at the Hospital, with an ample store of the best medicines. The Board consider this recommendation as of the highest importance, and entreat the attention of their fellow-citizens.

"By order of the Board of Managers;

"WM. JONES, President."

This recommendation seems, however, to have proved ineffectual, for, on the 18th of August, the Board issued the following:

"The malignity of the prevailing fever, and its insidious approaches, are such, as to resist the power of medicine, unless application is made in the first instance of complaint.

"The Board lament that their recommendation has not been attended to; as, in most instances, the patients have been ill three or four days previous to application for medical aid; to which, in a great degree, is to be attributed, the deaths of many valuable members of society. The Board reiterate their call to their fellow-citizens, and earnestly request, that not a moment may be delayed in obtaining medical assistance."

In the early days of their *régime* at the City Hospital Drs. Physick and Cooper became greatly alarmed at the mortality which prevailed among the patients in their care. They accordingly addressed a note to Dr. Rush requesting his advice as to the best plan of treatment to be pursued. He replied recommending purging and bleeding as the measures he had found most efficacious in previous epidemics. Later, on September 3, Dr. Rush and Dr. Samuel P. Griffitts published in the newspapers an article advising people of the best course to pursue if taken with the disease. An anonymous communication also appeared in the *United States Gazette* offering advice in the same manner, but of different nature. It was signed Mentor, but was undoubtedly written by Dr. Currie, the old opponent of Dr. Rush.

Condie gives the names of the following physicians who remained in the city during the epidemic,—viz., Drs. Rush, Griffitts, Mease, Wistar, Gallaher, Caldwell, Harris, Connover, Proudfit, Leib, Church, Boys, S. Duffield, B. Duffield, Park, Stuart, Strong, Biglow, Kinlaid, Pfeffer, Yeatman, Trexo, Munges, Pascalis, Laroche, and Devivier.

On the 1st of September the Board of Health announced that, acting with the Guardians of the Poor, they had caused tents to be erected on the east bank of the Schuylkill to accommodate the poor who were unable to obtain employment and had no place to live. It was announced that there were now ready accommodations

for twelve hundred persons, and an urgent appeal was made for money and supplies that yet more poor persons might be helped. In response to this appeal the Philadelphians who had sought safety in flight to Germantown held a meeting and resolved to raise a fund of thirty thousand dollars, to be placed at the disposal of the Board of Health in their efforts to relieve the poor. Contributions were also received from Baltimore and other places, and "A Yankee Seaman" sent fifty dollars from Boston, with a letter regretting that he could not send more. In a short time the population in the city of tents had reached over two thousand in number. The people in it were comfortably provided for, well-cooked food in ample quantity was supplied them, the tents were on wide streets, and the camp was carefully policed. The contrast between the comfortable situation of the campers and the miserable condition of those who remained in the city was stated in a widely-circulated handbill, written by some anonymous hand, which was distributed in the city about the 24th of September. It read:

"REFLECT BEFORE IT IS TOO LATE.

"Fellow-Citizens! reflect upon your danger before it is too late. One hundred of us are attacked with the fever every day. One half of that number is daily carried to the grave. If we remain in town, it is probable that the fever will continue five or six weeks longer; and, by that time, one-half of our number will have been sick! and one-fourth of us will be no more!

"How different is the situation of our friends in the country and in the tents!

"Two thousand persons in the tents have lost but seventeen in twenty-five days, while the same number in Philadelphia have lost one hundred and seventy-eight.

"At the encampments, there is great plenty of good food;

"In town it is resolved to give nothing to the poor who are able to go.

"Why Do You Prefer Famine, Sickness, and Death, To Health and Plenty?"

"It is not yet too late to remove.

"Go, Before It Is Too Late!"

Dr. Samuel Duffield was physician to the camp. Schools were established in it, which were attended by no less than two hundred and eighty children.

To add to the terror of the sickness thieving and wickedness of all kinds became rife. On August 4 an attempt was made to rob the Bank of Pennsylvania. This was unsuccessful, but on the 2d of September thieves managed to break in and secure over one hundred and sixty-two thousand dollars. The fever broke out among the prisoners in the city jail. This led to the removal of the debtors and those committed for minor offences to other places. The jailer, a man named Smith, resigned, and his place was voluntarily filled by Robert Wharton, the mayor, a man of great benevolence. He was first assisted by Peter Helm, who had previously done such good service at Bush Hill. Dr. Benjamin Duffield attended the prisoners. On the 18th of September a desperate attempt was made by some convicts to break jail. They overcame several constables who were escorting the doctor on his daily visit and made a rush for the gates. Robert Wharton and several constables, however, intercepted them, and after shooting several managed to drive the rest back into their cells. In a diary kept by Samuel Coates, one of the managers of the Pennsylvania Hospital, is a curious anecdote in this connection.¹⁹ He writes:

"One night I dreamed the Prisoners would make a violent attempt to rush out of Gaol and it made me very unhappy, as I felt a confident assurance it would come to pass, accordingly, I left the

¹⁹ Morton's History of the Pennsylvania Hospital, p. 72.

Hospital immediately after Breakfast and waited on Robert Wharton, the Mayor, who turned Prison Keeper for the time being on account of the sickness, and told him of my dream & how unhappy I felt — and that I thought he required more assistance than he had — I mentioned that if he would accept my offer I would send Francis Higgins to his aid who was steward of the Hospital, & had formerly been a prison keeper & used to their schemes & knew how to counteract them; if that wo'd not answer his purpose if he desired it I would go to the Governor & request a further Guard to protect him — he told me he was much obliged to me, but it was unnecessary — that they well knew he was well provided with arms & pointing to several musquets in the room he took up one with the bayonet fixed & presented it towards the wall of his room sang 'I am ready for them, but there is no Danger' — I told him to keep a good lookout for I was confident they would try to escape, & left him; but in parting he asked me if I would go in the yard & see the Prisoners at their work. I excused myself for that time, & said goodbye, perhaps I may come another time — from the Gaol I proceeded immediately towards my own house to enquire how matters were at home, having received a hint that some thieves had entered my next Neighbors house in the night. In my way home, in less than 5 minutes as I believe after I left Robert & when I had just reached Friends Almshouse, I heard the sound of a Drum; It startled me very much for Drum was never but then sounded in the City in the fever of 1798 — I instantly turned round, knowing there must be trouble in the Gaol — I now hurried to it, & found Edw'd before the Gaol with a box of cartridges made up, & a number of People running to it from the State house which at that time was the rendezvous of the Committee of Health with all their attendants — and just before we got to the Gaol steps a Musquet was fired.

"On entering the house Robert Wharton accosted me thus: Oh Samuel what you said has happened already."

Several more unsuccessful attempts were made at later periods.

In consequence of these many alarms an association of citizens was formed, who announced to the public,—

"That their intentions were merely to have a body of men ready to turn out, armed and equipped, on any sudden emergency, or to mount guard at any of the prisons, or elsewhere, if necessary; by thus being ready with arms and ammunition, to repair, at the first

notice, to their respective alarm posts, that they might act with the greatest promptitude and efficiency, and that the civil magistrates and other good citizens might know where to find a body of men prepared, to enforce a due obedience to the laws, and preserve order and tranquility."

Early in September a second camp was erected "at Masters Place, near the Mill-Pond, on the road to Germantown." The dwellings here were wooden sheds, and upward of two thousand persons availed themselves of its advantages. Drs. Currie and Dewees attended the inmates gratuitously. When the epidemic was over and before the dispersal of the people, they drew up a resolution of thanks to all who had aided them so greatly in their hour of need.

During the continuance of the fever there were eight hundred and ninety-nine cases admitted to the City Hospital, of which five hundred and eighteen died. The total number of deaths in the city and Liberties was three thousand five hundred and twenty-one. Towards the end of August the mortality was so great that it was impracticable to bury the dead in separate graves, so large trenches were dug, and the dirt taken from one was used to fill in the other. In this manner upward of fifteen hundred corpses were interred in a single trench.

From the 1st of October the epidemic gradually subsided, so that by the 1st of November the city was declared free from yellow fever. It was proposed to celebrate this event by having a procession in from the camps of all those who had dwelt in them. The project, however, was given up as impracticable.

During the epidemic of 1798 there were a number of cases of yellow fever on the Jersey shore of the Delaware.

Wickes²⁰ quotes from a letter written by Dr. Lummis, of Woodbury, New Jersey, to a physician in Philadelphia. The letter is dated December 4, 1798, and contains the following:

"During the late autumn, in the months of September and October, I visited several persons afflicted with the bilious fever, who had no possible opportunity of deriving their disease from any foreign source. . . . I have no hesitation in believing their disease to have been the offspring of local causes. The majority of these cases have occurred in families living on farms situated on the Jersey shore of the Delaware. The most valuable part of these farms consists of meadows. The proximity of these situations to the Delaware and large tracts of meadow-land lead me to ascribe their disease (aided by a peculiar state of the air) to the exhalations or marsh effluvia arising from the low ground situated near the banks and the meadows in the vicinity of the Delaware. The peculiar disposition of these exhalations to produce disease and death was around early in the season, by the mortality which prevailed among fowls and cats in this neighborhood. I am not alone in having seen cases of yellow fever which cannot be traced to contagion, similar facts having been witnessed this season by other physicians, in various parts of New Jersey."

Wickes also quotes the observations of Rush on this subject in his "Medical Inquiries," wherein he says, in noticing that yellow fever occurred in persons who suffered from malarial poisoning, as the result of their coming in contact with those who already suffered from yellow fever,—

"In the autumn of 1798 it [*i.e.*, yellow fever] prevailed upon the shores of the Delaware, in Gloucester County, N. J. A mild remittent prevailed on the *high grounds*, a few miles from the river during this time. If a person who had inhaled the seeds of the yellow fever in Philadelphia, afterwards came into a family *near* the river, the same disease appeared in several instances in one or more branches of that family; but when persons brought the fever from the city, and went into a family on the high grounds,

²⁰ History of Medicine in New Jersey.

where mild remittent prevailed, there was not a single instance of yellow fever being excited in any of its members."

Wickes refers likewise to Webster,²¹ who says,—

"In 1798 the first cases of the fever in Chester and Wilmington originated from Philadelphia; but the atmosphere also of the country in New Jersey and Delaware actually *generated* the disease in the neighbouring districts, and so it did in Connecticut."

In 1798 Wilmington, Delaware, suffered from an outbreak of yellow fever, which carried off two hundred and fifty of her citizens. In the opinion of Dr. Tilton, who was the most prominent physician of the town, the disease was introduced by fugitives from Philadelphia.

New London, Connecticut, was also visited by a yellow fever epidemic in 1798:

"Within a small space, were fifteen houses, inhabited by ninety-two persons—of which ninety were affected with the disease; thirty-three of this number died, and two only escaped the fever. The disease prevailed about eight weeks and destroyed eighty-one lives."

Its origin could never be traced. Webster of course says it was domestic, but it must have been imported; possibly by refugees from other towns.

In the summer of 1799 a number of vessels arrived in Philadelphia from various ports in the West Indies, many of them having suspicious cases of illness on board. Owing to lax methods of quarantine in many instances these persons got ashore. On the 28th of June the College of Physicians held a special meeting, and notified the Board of Health that there were a number of cases of yellow fever in the neighborhood of some of the wharves, and advised them to quarantine the vicinity of

²¹ On Pestilence.

such wharves. On the 2d of July the Board of Health replied, stating that they could not coincide in the opinion of the College that there was any cause for alarm. The numbers of cases continued to increase, however, and on the 21st of August the College of Physicians again forwarded a note of warning to the Board of Health. This warning was published in the newspapers, and at length the Board of Health made a tardy acknowledgment of the existence of the disease. Thereupon every citizen who did not feel a responsibility resting upon him to remain, and who was able to get away, fled, and once more the city assumed the melancholly, plague-stricken aspect which it had worn in previous years. Fortunately frost set in early, and by the middle of October the epidemic was at an end. The burials in the city from the 10th of July to the last of October numbered twelve hundred and seventy-six. During that time three hundred and twenty-four patients were admitted to the City Hospital, of whom one hundred and ninety-three died.

CHAPTER IV.

MEDICAL EDUCATION BEFORE THE FOUNDATION OF MEDICAL SCHOOLS.¹

PRIOR to the foundation of medical colleges in North America it was customary for young men desirous of learning "physic" to go abroad and study in the schools of Edinburgh, London, or the Continent, if they had the means, or if they had not the "wherewithal," they would apprentice themselves for a term of years to some practitioner of repute in the colonies, and at the expiration of the term of their indenture to him begin practice on their own account. As there were practically no laws as to who could, or who could not, practise medicine, many poorly educated physicians and charlatans arose to feed upon the laity. It has been estimated that at the outset of the war for Independence there were upward of three thousand five hundred practitioners of medicine in the colonies, of whom not more than four hundred had received medical degrees. Dr. Stillé,² quotes from a "List of the Graduates in Medicine in the University of Edinburgh," printed by Mill & Co. in 1867, the fact that between the years 1758 and 1788 the names of sixty-three Americans appear on the list. He also points out that but one of these students came from the New England colonies, signifying the closer relations in existence between the Middle and Southern States and the mother-country.

¹ This chapter is based upon an article of mine which appeared in the *Journal of the American Medical Association*, March 25, 1900, which the editor of the *Journal* kindly permits me to utilize.

² Life of John Dickinson.



DR. RALPH ASHETON.
(From a pen-and-ink drawing.)

In 1758, Dr. Ralph Asheton, of Philadelphia, was one of the students in medicine at the University of Edinburgh, and I have before me his matriculation cards and certificates of attendance on the various courses of lectures. The originals were written or printed upon the backs of ordinary playing-cards,—thus we find his ticket to the Royal Infirmary is made out upon the back of the seven of diamonds, and that admitting him to the second course on anatomy upon the back of the deuce of spades. His cards admitting him to the lectures are all duly stamped with the seal of the University. At the conclusion of his studies he received a certificate, beautifully engrossed with pen and ink, bearing the following inscription:

"This is to certify that Mr. Ralph Asheton has diligently and carefully attended my Courses of Anatomical and Chirurgical Lectures.

(Signed) "HENRY WATSON.

"August 5th, 1758."

Dr. Morton,³ speaking of the status of those physicians who crossed the ocean for their medical education, well says,—

"We find that the professional men of the seventeenth and eighteenth centuries were generally much better educated than most of their successors of the present time. Almost without exception they were classical scholars. Their graduating theses must be written in Latin. Travel was essential notwithstanding the encumbered modes of motion to which they were subjected. Leyden, Paris, Edinburgh, London, Oxford, Upsal, Bonn, and to some extent Vienna, Berlin, and the Italian schools, received and honored them; they, as a rule, by their subsequent career, equally honoring the places which they visited and where they sojourned. They were also men of affairs. It is surprising what a part they took at home in politics (in its broad sense) and government. They

³ History of the Pennsylvania Hospital.

were good soldiers, and freely offered themselves and their services to their country in time of need."

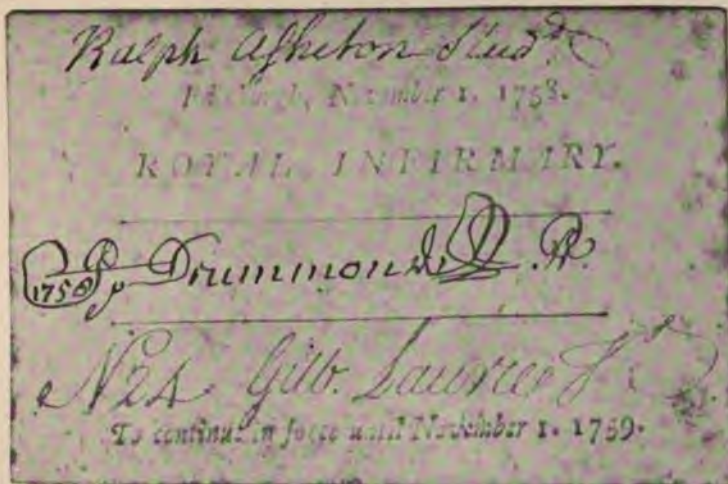
In 1899 Dr. Keen secured for the College of Physicians a photograph of a certificate granted by Dr. Christopher Witt to one of his pupils, the original being in the collection of Judge Pennypacker, of Philadelphia, who kindly loaned it for this purpose.

THESE May Inform all whom it might Concern That M^r. John Kaighin of Hatfield in the Province of West New Jersey, hath Lived with me (here under named) a considerable time, as a Disciple, to Learn the Arts & Mysteries of Chymistry, Physick, & the Astral Sciences, whereby to make a more perfect Discovery of the Hidden causes of more Occult & uncommon Diseases, not so easily to be discovered by the Vulgar Practice. In all which he has been very Diligent & Studious, as well as in the Administration of the Medecines, & in the various Cases; wherein his Judgment may be safely depended upon, all things. so far as he follows my Instructions. And Hope he may in all things answer the Confidence that may be reposed in him.

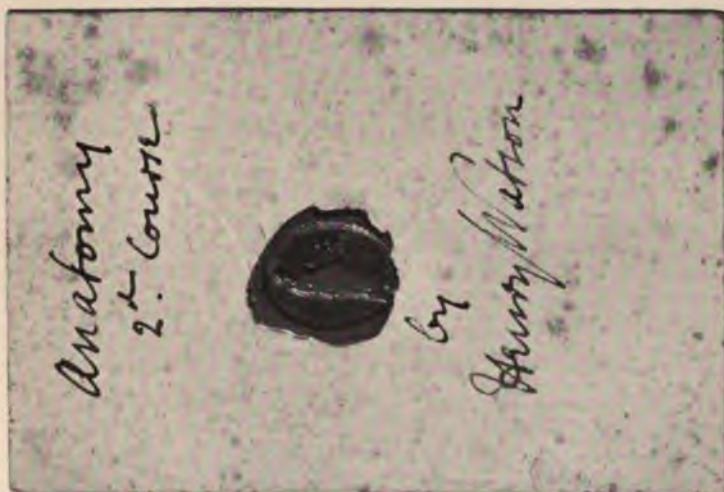
Germantown Febr: 20. 1738. C. Witt.

Certificate of medical proficiency granted by Dr. Christopher Witt, of Germantown, Pennsylvania.

In the certificate Dr. Witt testifies to his pupil's having received instruction, not only in mere medical science,



Written and printed on the back of the seven of diamonds.



Ticket admitting Dr. Ralph Asheton to the course on Anatomy at the University of Edinburgh. On the back of the two of spades.

as we understand it, but also in the astral sciences, thereby giving him a great advantage over those who had received their medical education at the hands of physicians who were not proficient in the science of the stars. There is an interesting account of Dr. Witt in Mr. Sachse's book, "The German Pietists of Provincial Pennsylvania." He was a quaint character even for his times, as we look back on them. Coming to this country in 1704, he settled first with the German Pietists on the banks of the Wissahickon, but in 1718 moved to Germantown. Here he remained until his death in 1765, becoming distinguished as a physician, naturalist, astronomer, and magus. He was also an expert clock-maker and builder of pipe-organs. His astronomical investigations were made through a large telescope in his house, and these occult studies earned for him the name of "hexenmeister," or master of the kobolds or fairies. He had a mulatto servant whom the neighbors regarded as his famulus, or familiar spirit. He was an intimate friend of John Bartram, the botanist, and a correspondent of Peter Collinson, the famous English botanist. At his death he bequeathed sixty pounds to the Pennsylvania Hospital.

In the days before there were any medical colleges to grant diplomas, certificates such as this were all that many practitioners of medicine could show to indicate any special fitness for their calling.

Wickes⁴ furnishes us with a copy of a certificate issued by Dr. John Redman:

"MEDICAL CERTIFICATE TO MR. SAMUEL TREAT, 1765.

"Philadelphia. This is to certify to all whom it may concern that Mr. Samuel Treat hath served as an Apprentice to me for nearly four years, during which he was constantly employed in

⁴ History of Medicine in New Jersey.

the practice of Physic and Surgery under my care, not only in my private business, but in the Pennsylvania Hospital, in which character he always behaved with great Fidelity and Industry. In Testimony of which, I have hereunto set my hand this first day of September, One Thousand Seven hundred and Sixty-five.

(Signed) "JOHN REDMAN.

"We whose names are under written do Certify that Mr. Samuel Treat hath diligently attended the practice of Physic and Surgery in the Pennsylvania Hospital for several years.

(Signed) "THOS. CADWALLADER,
PHINEAS BOND,
TH. BOND,
WM. SHIPPEN,
C. EVANS.

"This is to certify that Samuel Treat hath attended a course of Anatomical Lectures with the greatest diligence and assiduity.

(Signed) "WILLIAM SHIPPEN, JR."

Dr. Thomas G. Morton, in his "History of the Pennsylvania Hospital," also gives some interesting specimens of the certificates granted by the hospital authorities to those who had attended the hospital as pupils. They were issued after the following form:

"This is to Certify that, son of, West Jersey, entered regularly as a pupil of the Pennsylvania Hospital,, 1763, and continued his attendance with Diligence and Application, to, 1764, during which time we hope and have reason to believe he has made considerable Progress in the Knowledge of Anatomy and the Practice of Physick and Surgery, therefore wishing Happiness and success we give from under our hands and the seal of the Corporation, this Testimonial of our Esteem and Approbation."

The first man to receive a medical diploma in North America was Daniel Turner, who received the gift of an honorary degree of Doctor of Medicine in 1720 from Yale College. Turner had given much money to the College, and the degree was intended as some return for his generosity, hence those of a humorous turn of mind

are said to have interpreted the M.D. as signifying *Multum Donavit*. There was, however, no medical department at Yale until the year 1813.

At the centennial celebration of the Medical and Surgical Faculty of Maryland, held in Baltimore in April, 1899, there was exhibited the medical diploma of Dr. Archer from the College of Philadelphia. This is probably the first medical diploma awarded after a course of study in America. As such it merits reproduction. It will be observed that the faculty signatures comprise the eminent names of Morgan, Kuhn, Bond, and Shippen, probably the four most prominent medical men of their day in this country:

"Omnibus ad quos præsentēs Literæ pervenorint, Salutem. Nos Præfectus, Vice Præfectus, et Professores Collegii et Academiæ Philadelphiensis, testamur Virum ornatum ac ingenum Johannem Archer assidue interfuisse, operamque sedulo navasse, ut Scientia Medica imbutus atque eruditus discederet ac postquam, Curriculi sui Spatio peracto, in Aula nostra coram Curatoribus, multisque aliis Civibus dignissimis ad Examen revocatus, se in omnibus hisce Studiis satis versatum comprobasset, ex Curatorum Mandato in Publicis Comitibus vigilissimo primo die Junii Anno 1768 celebratis Baccalaureatus in Medicina Gradum, omniaque Privilegia, et Honores ad hunc Gradum pertinentes consecutum fuisse. In cujus Rei Testimonium his Liberis, majori Collegii et Academiæ Sigillo munitis, Die Annoque prædictis Nomina subscripsimus.

"JOHANNEM MORGAN, M.D., F.R.S.,
 Theo. & Prax. Med. Professor.
 ADAM KUHN, M.D., Mat. Med.
 & Bot. Professor.
 GUL. SMITH, Collegii & Acadæ.
 Præfectus, S.T.D.
 FRA. ALISON, S.T.D. Coll.
 Vice Præfect. & Acadæ Rector.
 EBEN KENNERSLEY, Ling. Angl.
 & Orat. Prof.
 GUL. SHIPPEN, M.D., Anat. Prof.
 JAS. DAVIDSON, Ling. Græc. &
 Lat. Prof.

"Fidem facio Virum ornatum Johannem Archer, Prælectionibus Clinicus et Praxeos Noscomio Philadelphensi interfuisse et Fructus Diligentiae suae uberrimus consecutum fuisse.

"TH. BOND (A.M.H.), Collegii et
Acad. Curator & Prælec. Clinicus."

The earliest law, and the only one passed until many generations later, that I can find making any distinction between those who had received a diploma in medicine and those who had no degree was "An Act for Regulating the Fees and Accounts of the Practicers of Physic" passed by the Virginia Assembly in 1736. "Surgeons and apothecaries who have served an apprenticeship to those trades" were to charge at one rate, and "those persons who have studied physic in any University, and taken any degree therein," were permitted to charge at a higher rate.

In 1758 William Smith, in his "History of New York, wrote,—

"A few physicians among us are eminent for their skill. Quacks abound like locusts in Egypt, and too many have been recommended to a full practice and profitable subsistence; this is less to be wondered at, as the profession is under no kind of regulation. Loud as the call is, to our shame be it remembered, we have no law to protect the lives of the King's subjects from the malpractice of pretenders. Any man, at his pleasure, sets up for physician, apothecary, and surgeon. No candidates are either examined, licensed, or sworn to fair practice."

Not much has descended to us about the student-life of those days. With the exception of the fortunate ones, who could look back upon days spent in an English, Scotch, or Continental college, the period of their tutelage seems to have been a dreary one to those disciples of Æsculapius whose reminiscences have remained to us. A few examples taken from the accounts of the lives of some who subsequently became distinguished will suffice to show that it was not all beer and skittles.

Dr. John Bard was a native of Pennsylvania, born in 1716. He received his early education in Philadelphia, and at the age of fourteen years was bound apprentice to the senior Dr. Kearsley of that city. Kearsley was a man of great professional attainments, and very eminent in his profession and in public and social life, but possessed of a most morose and gloomy temperament.

"He treated his pupils with great rigor, and subjected them to the most menial employments, to which, Dr. Bard has been heard to say, he would never have submitted, but from the apprehension of giving pain to his excellent mother, who was then a widow with seven children and a very moderate income, and from the encouragement he received from the kindness of her particular friend, Mrs. Kearsley, of whom he always spoke in terms of warmest gratitude, affection and respect. Under such circumstances he persevered to the end of seven tedious years, stealing his hours of study from sleep after the family had retired to rest, and before they arose in the morning."

Benjamin Rush was born on his father's farm, a few miles from Philadelphia, in 1745. He obtained the degree of A.B. from Princeton in 1760, before he was fifteen years old, and at once began the study of medicine, serving as an apprentice to Dr. John Redman, of Philadelphia, for the next six years. Thacher says,—

"The writings of Hippocrates were among the first books Benjamin Rush read in medicine, and while he was an apprentice he translated his 'Aphorisms' from Greek into English. He also began to keep a notebook of remarkable occurrences, the plan of which he afterward improved and continued through life. From a part of this record, written in the seventeenth year of age of its author, we derive the only account of the yellow fever in 1762 in Philadelphia which has descended to posterity. In the same year he was one of Dr. Shippen's ten pupils, who attended the first course of anatomical lectures given in this country. Two years after, and while he was a daily attendant in the shop of Dr. Redman, he commenced his brilliant career as an author. On the expiration of his apprenticeship, Benjamin Rush went in 1766, to Edinburgh to prosecute his studies in that city."

Dr. Daniel Drake was of a later period, but his medical education was so typic of that of an earlier date that I venture to quote concerning it from his life by Mansfield. His apprenticeship began in 1800, when he was sixteen years of age, to Dr. Goforth.

"During the next three years his chief occupation was the study of medicine, the running of errands, the compounding of drugs, and all such employments as befall a country doctor's boy, student, young man, or whatever else bluntness or courtesy might call him."

There were no systematic courses of lectures or demonstrations for these young men, unless they happened to live in Philadelphia, Boston, or New York. To Dr. Cadwallader Colden is to be ascribed the credit of the first attempt to establish a systematic course of lectures on medical subjects in the colonies. Dr. Colden was born in Dunse, Scotland, February 17, 1688. He graduated in the academic course at the University of Edinburgh in 1705, and then studied medicine. In 1710 he crossed the ocean and settled in Pennsylvania. In 1715 he went back to England, but returned to Pennsylvania in 1716. In a letter by James Logan, of Philadelphia, written May 1, 1717, is the following reference to his scheme:

"All I know of that bill is only this. He [Colden] came to me one day to desire my opinion of a proposal to get an act of Assembly for an allowance to him as physician for the poor of this place. I told him I thought very well of the thing, but doubted whether it could be brought to bear in the House. Not long after R. Hill showed me a bill for this purpose, put in his hands by the Governor, with the two further provisions in it, which were, that a public physical lecture should be held in Philadelphia, to the support of which every unmarried man above twenty-one years, should pay six shillings, eight-pence, or an English crown yearly, and that the corpses of all persons whatever that died here should be visited by an appointed physician, who should receive for his trouble three shillings and four-pence. These things I owned very commendable,



DR. CHARLES F. WIENTHAL.

(Reproduced from the Johns Hopkins Hospital Bulletin for July-August, 1900.)

but doubted our Assembly would never go into them, that of the lectures especially."

Colden's efforts were fruitless, the prognostications of Logan proving correct.

In the year 1750 Dr. Thomas Cadwalader, who had been a pupil of Cheselden, of London, gave a series of practical demonstrations of anatomy to a number of the physicians of Philadelphia. It is almost pathetic to read of the eagerness and zeal for knowledge displayed by these old fellows, who, instead of manifesting any jealousy of the superior opportunities of their colleague, anxiously sought to reap the advantage of his London experience, which he in his turn was just as generous in imparting to them. In the same year (1750) a criminal named Hermanus Carroll was executed for murder in New York City, and his body was dissected by Dr. John Bard and Dr. Peter Middleton for the instruction of the young men then engaged in the study of medicine. "This is the first essay made in the colonies for the purpose of acquiring medical knowledge by dissection, of which we have any record."

Charles Frederick Wiesenthal was one of the best-known medical teachers of his day. A very interesting account of his life and labors was published by Dr. Eugene F. Cordell, in the *Bulletin of the Johns Hopkins Hospital* for July—August, 1900. It was accompanied by the picture of Dr. Wiesenthal, which is here reproduced. Wiesenthal was born in Prussia in 1726 and settled in Baltimore in 1755. His first entry into public life was in 1775, when he was made a member of the Committee of Observation of Baltimore. On March 2, 1776, he was appointed surgeon-major of the First Maryland Battalion, commanded by the distinguished

Colonel Smallwood. He was also medical purveyor for the Maryland troops and on the board to examine candidates for the army medical service. In 1777 he was surgeon-general of the Maryland troops. In Gay Street he had a house which he used as a medical school, and he seems to have had many pupils. In 1788, while he and some pupils were engaged in dissecting the body of a murderer, a mob attacked the house and put an abrupt stop to their studies. Among those whom he taught Dr. Cordell mentions Drs. William Augustus Dashiell, George Buchanan, Ezekiel John Dorsey, Andrew Wiesenthal, and Frederick Dalcho.

Dr. Cordell gives some interesting extracts from the old doctor's correspondence. His son Andrew studied medicine in Philadelphia in 1781-82 and in London in 1786-89. On December 25, 1781, Dr. Wiesenthal wrote to him:

"We received your letters . . . in which I see your beginning to dissect yourself which pleases me and I insist that you continue to do the same manually in *propria persona*, and not being content with merely demonstrations after the Subject is prepared, as I want the practical part, it will lead you towards Operations and will make that part of Surgery more intelligible. I hope you will not be content with merely knowing the situation of the Viscera, but will examine them minutely, their contents Vessels Ducts &c. . . . I hear Doctor Shippen has a young Gentleman who prepares the Subjects for his Demonstration. I would have you cultivate a strict friendship with him, as far as his Morals will admit of (in which particular you know my firm Opinion) and frequently make Inquiries of the Doctor himself, who I hope is often with you himself & teaches."

There is a pleasing reference to Dr. Thomas Bond in one of the letters:

"I am glad you have introduc'd yourself to Doctor Bond though he may have some Oddities, you may nevertheless rely on this that his Acquaintance will be valuable to you both, his Learning and

Experience are unquestionable, and he moreover is very communicative and takes a Delight in instructing young Persons, and that in proportion to their Diligence and Application, you will therefore visit his Lectures frequently and freely apply to him to resolve such things as may be obscure to you, he is a good Surgeon besides and may give you some good hints in the hospital."

Dr. Wiesenthal made an earnest effort to have the practice of medicine in Maryland regulated by law, but his labors did not attain their fruition during his lifetime.

The following is a description of his ordinary costume: "a scarlet cloak, three cornered hat, blue velvet coat with gold buttons & buff facings, buff vest, lace ruffled shirt, knee breeches, stockings, shoe buckles, plain white cravat surrounding neck, wig & cue tied with a black ribbon."

He died on June 1, 1789. His son, Dr. Andrew Wiesenthal, survived him, dying in 1798 when only thirty-six years old.

Somewhere about the year 1752 there came to Rhode Island a young Scotchman named William Hunter, who was a relative of the two famous brothers, John and William Hunter. He was born in 1729, educated under the elder Monro, and served as a surgeon's mate at the battle of Culloden. In 1754-56 he delivered lectures at Newport on anatomy and comparative anatomy, which were advertised in the Boston newspapers. He died in Boston in 1777. It is curious to reflect that one of the earliest teachers of anatomy in this country was a near relation of two of the greatest teachers in the medical history of England.

To no one, however, does the advancement of the study of medicine in the colonies owe more than to Dr. William Shippen, Jr., of Philadelphia. He was born in the latter city in 1736, his father being a prominent physician there. After graduating from the College of New Jersey, as Princeton was then called, he entered the

office of his father and studied medicine with him for three years, and then went to England, where he studied anatomy with John Hunter, and midwifery with William Hunter and Dr. McKenzie, finally graduating from the medical department of the University of Edinburgh. His graduation thesis was "De Placentæ cum Utero Nexu." An interesting letter from his father to a gentleman in England has descended to us; in it he speaks of the course of study he wishes his son to pursue while abroad, as follows:

"My son has had his education in the best college in this part of the country, and has been studying physic with me, besides which he has had the opportunity of seeing the practice of every gentleman of note in our city. But for want of that variety of operations and those frequent dissections which are common in older countries, I must send him to Europe. His scheme is to gain all the knowledge he can in anatomy, physic, and surgery. He will stay in London for the winter, and shall attend Mr. Hunter's anatomical lectures and private dissections, injections, etc., and at the same time go through a course of midwifery with Dr. Smellie; also enter as a pupil in Guy's Hospital. As soon as the season is over, he may go to France, and live with Dr. Leese in Rouen, and there study physic until he can pass an examination and take a degree."

Young Shippen returned to this country in 1762, having been abroad five years, and in March of the same year he began the delivery of a series of lectures on midwifery,—the first special course on that subject ever given in this country. The following announcement of the course was published in the *Pennsylvania Gazette*:

"DOCTOR SHIPPEN, JUNIOR,

Proposes to begin his first course on Midwifery as soon as a number of pupils sufficient to defray the necessary expense shall apply. A course will consist of about twenty lectures in which he will treat of that part of anatomy which is necessary to understand that branch, explain all cases of Midwifery—natural, difficult, and preternatural—and give directions how to treat them with safety to the



DR. THOMAS CADWALADER.



DR. WM. SHIPPEN, JR.

Pioneers in medical education.

(Reproduced from Morton's "History of the Pennsylvania Hospital.")

mother and child; describe the diseases incident to women and children in the month, and direct to proper remedies; will take occasion during the course to explain and apply those curious anatomical plates and casts of the gravid uterus at the Hospital, and conclude the whole with necessary cautions against the dangerous and cruel use of instruments.

"In order to make this course more perfect, a convenient lodging is provided for the accommodation of a few poor women, who otherwise might suffer for want of the common necessities on these occasions, to be under the care of a sober, honest matron, well acquainted with lying-in women, employed by the Doctor for that purpose. Each pupil to attend two courses at least, for which he is to pay five guineas. Perpetual pupils to pay ten guineas.

"The female pupils may be taught privately, and assisted at any of their private labors when necessary. The Doctor may be spoke with at his house, in Front street, every morning between the hours of six and nine; or at his office in Letitia Court every evening."

Dr. Norris⁵ gives very copious extracts from notes taken on Dr. Shippen's introductory lecture, and I quote from him the following portions. The lecture began with the statement that he was often called in consultation in cases of difficult labor,

"most of which were made so by the unskilful old women about them and seeing that great suffering to the mothers, accompanied often with loss of life to them, or their offspring, have followed, which could easily have been prevented by proper management, had made him resolve to introduce a course of lectures on that useful and necessary branch of surgery, in order to remedy those terrible evils, and to instruct those women who have had virtue enough to own their ignorance and apply for instruction, as well as those students who are qualifying themselves to practise in different parts of the country with safety and advantage to their fellow creatures."

He mentions several cases of gross mismanagement of labor cases which had fallen under his observation, and then continues:

⁵ Early History of Medicine in Philadelphia.

"I have reason to believe that I shall be able to present each of you with one natural labor at least, and have provided a machine, by which I can demonstrate all kinds of laborious and preternatural labors, and shall give every necessary direction to enable you to manage all cases with the greatest safety to mother and child."

He stated the order in which his lectures would be given:

"1st. On the Bones of the Pelvis. 2nd. Male and Female Organs. 3rd. Changes in the Uterus. 4th. On the Placenta. 5th and 6th. On the Circulation and Nutrition of the Fœtus. 7th. On the Signs of Pregnancy. 8th. On the Menses. 9th. Fluor Albus. 10th. On Natural Labors. 11th. and succeeding ones on Laborious and Preternatural Labors, with the use of Instruments; and concluded by particular lectures on the Diseases of Women and Children within the month, and directions concerning the diet of each, and methods of choosing and making good nurses."

He reviewed the history of midwifery, and pointed out what was necessary to make a man midwife, "an adept in his profession, and to gain the good opinion of the female world," advising him to preserve a "grave deportment" with well-timed conversation, but avoiding religiously any jokes about the patient or profession." He warned the class that the drinking habit might easily be contracted "insensibly by the foolish custom of taking a dram in a cold or wet morning." Concerning their fees he says, "I give you only one admonition, which is, to charge no one extravagantly, and every one in proportion to their abilities, remembering that by giving your service gratuitously to the poor, you will get much from the rich."

Those "curious anatomical plates and casts of the gravid uterus at the Hospital," to which Dr. Shippen refers in his announcement, form a most interesting link in the genealogical chain connecting medical education in this country with that in England. They were presented to the managers of the Hospital by Dr. John Fothergill,

of London, and the whole story of their presentation and subsequent history is most interestingly told in Dr. Morton's history of the hospital. When Dr. Shippen was studying abroad he made the acquaintance of Dr. Fothergill, who became much interested in the account he gave him of the hospital. On July 27, 1762, Dr. Fothergill presented the hospital library with its first volume, "for the benefit of the young students who may attend under the direction of the physicians," and he also gave the hospital, towards the founding of a museum, seven cases of anatomic drawings and casts, which were then valued at three hundred and fifty pounds.

In a letter to James Pemberton, at that time one of the managers of the Hospital, Dr. Fothergill says,—

"I need not tell thee that the knowledge of anatomy is of exceeding great use to practitioners in physic and surgery and that the means of procuring subjects with you are not easy. Some pretty accurate anatomical drawings, about half as big as the life, have fallen into my hands, which I propose to send to your hospital to be under the care of the physicians, and to be by them explained to the students and pupils who may attend the hospital. In the want of real subjects these will have their use, and I have recommended to Dr. Shippen to give a course of anatomical lectures to such as may attend. He is very well qualified for the subject, and will soon be followed by an able assistant, Dr. Morgan, both of whom I apprehend, will not only be useful to the Province in their employments, but if suitably countenanced by the Legislature will be able to erect a school of physic among you that may draw students from various parts of America and the West Indies, and at least furnish them with a better idea of the rudiments of their profession than they have at present the means of acquiring on your side of the water."

It will be remembered that Drs. Morgan and Shippen subsequently filled the two first professional chairs in the medical department of the University of Pennsylvania. On the minutes of the Pennsylvania Hospital, May 17, 1763, occurs the following entry:

"Doct. William Shippen, Junr. attended and proposed that an advantage may arise to the hospital by the Anatomical Drawings & Casts presented by Dr. Fothergill. He offered his services to attend twice a month to give some general explanation thereof to such Persons who may be desirous to view them, the Board approving of the Doctor's Kind Intention, the following advertisement proposed by him was agreed to be published in the next Gazette, viz:

"'The Generous Donation of Doctr. Fothergill of London to the Pennsylvania Hospital of a Sett of Anatomical Paintings and Castings in plaister of Paris representing different views of the several parts of the human body, being now deposited in a Convenient Chamber of the Hospital, as there may be many Persons, besides Students in Physick desirous to gain some general knowledge of the structure of the human body, Dr. William Shippen, Jr. proposes to attend there on the Seventh Day of the Week the 21st inst. at 5 o'clock P.M. and once a fortnight on the same day of the week, at the same hour during the summer season, to explain and demonstrate to such persons who are willing to give a Dollar each for the benefit of the Hospital.'"

That Dr. Shippen did not possess the sole right to use the preparations is shown by the following resolution adopted by the board of managers of the hospital: "Any Professor of Anatomy being desirous to exhibit lectures, he is to apply to the Managers in attendance for Liberty." They also regulated the price for pupils in physic by the following rule: "All pupils attending lectures are to pay a pistole each."

In the autumn of 1762 Dr. Shippen announced to the public, through the columns of the *Pennsylvania Gazette*, his intention to give a course of anatomical lectures in the following letter:

"PHILADELPHIA, November 11th, 1762.

"MR. HALL

"Please to inform the public that a course of Anatomical Lectures will be opened this winter in Philadelphia, for the advantage of the young gentlemen now engaged in the study of Physic, in this and the neighboring provinces, whose circumstances and con-

nections will not admit of their going abroad for improvement to the anatomical schools in Europe; and also for the entertainment of any gentlemen who may have the curiosity to understand the anatomy of the Human Frame. In these lectures the situation, figure and structure of all the parts of the Human body will be demonstrated, their respective uses explained, and as far as a course of anatomy will permit, their diseases, with the indications and methods of cure briefly treated of.

"All the necessary operations in surgery will be performed, a course of bandages exhibited, and the whole conclude with an explanation of some of the curious phenomena that arise from an examination of the gravid uterus, and a few plain directions in the study and practice of midwifery. The necessity and public utility of such a course in this growing country, and the method to be pursued therein, will be more particularly explained in an Introductory Lecture, to be delivered the 16th instant, at six o'clock in the evening, at the State House, by William Shippen, Jr., M.D. The lectures will be given at his Father's house in Fourth Street. Tickets for the course to be had of the Doctor at five pistoles each; and any gentleman who may incline to see the subject prepared for the lectures, and to learn the art of dissecting, injecting, etc., is to pay five pistoles more."

In February, 1763, he published the following notice:

"Dr. Shippen having finished on Osteology—the most dry, though the most necessary part of anatomy—will admit gentlemen who want to gratify their curiosity, to any particular lecture—Tickets five shillings."

The first course that he delivered was attended by but ten students, but in subsequent years he had as many as two hundred and fifty in a class. There was a great deal of opposition to the establishment of a place in which it was proposed to dissect the human body, and several times the building in which the dissections were performed was attacked and its windows broken. Dr. Norris says,—

"In one of these attacks the Doctor himself made a narrow escape by passing out through an alley, while his carriage, which stood before the door with its blinds raised, and which was supposed

to contain him, received, along with a shower of other missiles, a musket ball through the center of it. More than once he was compelled to desert his own dwelling and conceal himself, in order to avoid the tyrannical exactions of the people. Several times he addressed the citizens through the public papers, assuring them that the reports of his disturbing private burying-grounds were absolutely false, and stating that the subjects he dissected were either of persons who had committed suicide, or such as had been publicly executed; except, he *naïvely* adds, 'now and then one from the Potter's Field.'

Gradually, however, he overcame the opposition to his project, and the undertaking proved thoroughly successful. Norris says that in December, 1762, the newspapers stated the body of a negro who had committed suicide by cutting his throat with a bottle was handed over to Dr. Shippen for anatomic purposes, and he also quotes the following paragraph from the *Pennsylvania Gazette*, indicating that he received aid from other sources than the city of Philadelphia:

"Last Saturday a prisoner was executed at Gloucester, New Jersey, pursuant to his sentence, and his body was sent by order of the Chief Justice to Dr. Shippen's anatomical theatre for dissection."

The Pennsylvania Hospital was a great centre for medical instruction, furnishing greater facilities for clinical observation than could be obtained elsewhere throughout the colonies. The first patient was admitted to the hospital February 10, 1752. For some time the number of patients capable of accommodation in the hospital was so limited that the physicians and surgeons on its staff did not require the aid of skilled medical assistance in the performance of their duties, but as the number of inmates increased the staff found it very essential that they should have the aid of assistants who possessed some skill in the handling of patients, dressing of wounds, etc.,

and it became customary for them to bring their apprentices with them when they made the rounds of the wards, and use them as dressers and assistants, the apprentices in turn deriving the benefit of seeing the practice of the hospital. Besides their own apprentices they soon began to allow other students to make the rounds. So many young men availed themselves of these privileges that on May 10, 1763, the managers resolved,—

“It is the unanimous opinion of the Board that such of them at least who are not apprentices to the Physicians of the House, should pay a proper Gratuity for the Benefit of the Hospital for their privilege; the consideration of stipulating the sum is referred to the next board after consulting with ye Physicians.”

Dr. Morton quotes the minutes of the next meeting of the board, May 31, 1763, which, as he justly says, shows the “disinterestedness and liberality” of the physicians “in a very honourable light.” The meeting occurred just after the annual election of managers and physicians to the hospital.

“5th Mo., 28th, 1763.

“It appears that the Physicians chosen were informed thereof and have agreed to undertake the Service this year. A copy of the Minute of last Board respecting the Students who attend the wards at the time of the visiting the Patients having been communicated to them; Doctr. Thomas Bond and Dr. Cadw. Evans now attended and informed the board that the several Physicians have met & considered the same & committed their Sentiments thereon to writing which they delivered & was read, it being as follows, viz:

“‘PHILADELPHIA, May 31, 1763.

“‘Upon considering the Minute of the Managers of the Pennsylvania Hospital made the 10th of 5 mo. 1763, relative to those Students who attend the Wards of said Hospital. It is our opinion that each Student who is not an Apprentice to one of the Physicians attending the House shall pay six pistoles as a Gratuity for that Privilege That the Managers & Doctors in Attendance for the time being shall be the judge who are proper to be admitted or refused. And further, as the Custom of most of the Hospitals

in Great Britain has given such Gratuities to the Physicians and Surgeons attending them, we think it properly belongs to us to appropriate the Money arising from thence. And propose to apply it to the founding of a Medical Library in the said Hospital which we judge will tend greatly to the Advantage of the Pupils & the Honour of the Institution.

“ ‘ THOS. BOND,

“ ‘ THOS. CADWALLADER,

“ ‘ PHINEAS BOND,

“ ‘ CAD. EVANS.’

“After Consideration whereof the Board agrees to the Proposal in respect to the terms upon which Students in Physic are to be admitted to attend the wards; the Gratuity for which to be paid the treasurer, and in Regard to the Proposal for a Medical Library, that such books as are purchased should be approved of by the Managers, as likewise the manner in which they are to be lent out.”

At the end of their term of instruction such students were given certificates signed by the medical staff and managers of the hospital.

In 1773, Dr. Morton tells us, the managers began the custom of taking young men who wished to study medicine as apprentices to the institution, the term of apprenticeship being five years. They were regularly indentured to the hospital for this length of time; when it was over each man received a certificate stating that fact, and a suit of “cloathes.” This system of apprenticeship was continued for many years. After the foundation of the Medical Department of the University of Pennsylvania the apprentices attended the lectures there while they were in the service of the hospital. It was not until 1824 that the rule was made requiring all those serving the hospital in the capacity of what we now call “residents” to be regularly graduated from a medical college previous to their appointment to the position.

In 1766 Dr. Thomas Bond, of the staff of physicians

to the hospital, suggested to the managers the propriety of establishing a regular course of clinical lectures, and in order to secure their assent to such a course being given he invited them to his house, November 26, 1766, where he read them "An Essay on the Utility of Clinical Lectures." This lecture was presented to the hospital, and so pleased the managers that they ordered its insertion in their minutes, whence Dr. Morton resuscitated it in the "History of the Pennsylvania Hospital." It reads as follows:

"When I consider the unskilful hands the Practice of Physick & Surgery has of necessity been committed to, in many parts of America, it gives me pleasure to behold so many Worthy Young Men, training up in those professions, which, from the nature of their Objects, are the most interesting to the Community, and I get a great pleasure in foreseeing, that the unparalleled public Spirit of the Good People of this Province, will shortly make Philadelphia the Athens of America, and render the Sons of Pennsylvania, reputable amongst the most celebrated Europeans, in all the liberal Arts and Sciences. This I am at present certain of, that the institution of Literature and Charity, already founded, & the School of Physick lately open'd in this City afford Suffict. Foundation for the Students of Physic to acquire all the Knowledge necessary for their practising every Branch of their professions, respectably and Judiciously. The great Expençe in going from America to Europe, & thence from Country to Country, & College to College in Quest of Medical Qualifications, is often a Barr to the cultivation of the Brightest Geniuses amongst us, who might otherwise be Morning Stars in their professions, & most useful Members of Society. Besides every Climate produces Diseases peculiar to itself, which require experience to understand and Cure, & even the Diseases of the several Seasons in the Same Country, are found to differ so much some Years, from what they were in others, that Sydenham, the most Sagacious Physician that ever lived, acknowledged that he was often difficulted and much mistaken in the treatment of Epidemics for sometime after their appearance.

"No Country then can be so proper for the instruction of Youth in the Knowledge of Physick, as that in which 'tis to be practised; where the precepts of never failing Experience are handed down from Father to Son, from Tutor to Pupil. That this is not a

Speculative opinion, but real Matter of Fact, may be proven from the Savages of America, who without the assistance of Literature, have been found possessed of Skill in the Cure of Diseases incident to their Climate, Superior to the Regular bred, and most learned Physicians, & that from their discoveries the present practice of Physic has been enrich'd with some of the most valuable Medicines now in use.

"Therefore from Principles of Patriotism and Humanity, the Physic School here, should meet all the protection and Encouragement, the Friends of their Country, & Well Wishers of Mankind can possibly give it. Though 'tis yet in its Infancy from the Judicious Treatment of its Guardians, it is already become A forward Child, & has the promising appearance of soon arriving to a Vigorous & Healthful Maturity. The Professors in it at present are few; but their departments include the most Essential parts of Education; Another, whose distinguished Abilities will do honor to his Country and the Institution is Expected to join them in the Spring; and I think he has little Faith who can doubt that so good an undertaking will ever fail of Additional Strength, & a Providential Blessing. And I am Certain nothing would give me so much pleasure as to have it in my Power to contribute the least mite towards its perfect Establishment.

"The Professor of Anatomy and Physiology, is well Qualified for the Task; his Dissections are Accurate and Elegant, & his Lectures, Learned, Judicious & Clear.

"The Professor of the Theory and Practice of Physic has had the best opportunities of improvement, join'd to Genius & application, & cannot fail of giving Necessary and instructive Lessons to the Pupils.

"The Field this Gentleman undertakes is very Extensive, & has many difficulties which may mislead the Footsteps of an uncautioned Traveller, therefore Lectures, in which the different Parts of the Theory & Practice of Physic are Judiciously classed and systematically explained, will prevent many Perplexities the Student would otherwise be embarrassed with, will unfold the Doors of Knowledge, and be of great use in directing & abridging his future Studies, Yet there is something further wanting, he must Join Examples with Study, before he can be sufficiently qualified to prescribe for the sick; for Language & Books alone, can never give him Adequate Ideas of Diseases, & the best methods of Treating them. For which reasons Infirmarys are Justly reputed the Grand Theatres of Medical Knowledge.

"There, the Clinical professor comes in to the Aid of Speculation and demonstrates the Truth of Theory by Facts; he meets his

pupils at stated times in the Hospital, And when a case presents adapted to his purpose, he asks all those Questions which lead to a certain knowledge of the Disease, & parts Affected, this he does in the most exact and particular manner, to convince the Students how many, & what minute Circumstances are often necessary to form a judgement of the Curative indications, on which, the Safety & Life of the Patient depend, from all which Circumstances and the present Symptoms, he pronounces what the Disease is, whether it is Curable or Incurable, in what manner it ought to be treated, and gives his reason from Authority or Experience for all he says on the Occasion; and if the Disease baffles the power of Art, and the Patient falls a Sacrifice to it, he then brings his Knowledge to the Test, & fixes Honour or discredit on his Reputation by exposing all the Morbid parts to View, and Demonstrates by what means it produced Death, and if perchance he finds something unexpected, which Betrays an Error in Judgement, he like a great & good Man, immediately acknowledges the mistake, and, for the benefit of survivors, points out other methods by which it might have been more happily treated;—The latter part of this Field of Tuition is the surest method of obtaining just Ideas of Diseases. The great Boerhaave was so attentive to it, that he was not only present at the opening of Human Bodies, but frequently attended the Slaughter Houses in Leyden, to Examine the Carcases of Beasts; and being asked by a learn'd Friend, by what means he had acquired such uncommon Certainty in the Diagnostics and Prognostics of Diseases, answered by examining dead Bodies, studying Sydenham's observations, and Bonetus's *Sepulchretum Anatomicum*, both of which he had read ten times & each time with greater pleasure, and improvement.

"But to give you more familiar instances of the Utility of this practice, let me remind several of you, who were present last Fall at the opening two Bodies, One of which died of Astmatic complaints, the other of a Phrenzy succeeded by a Palsey, and ask you whether anything short of ocular demonstration; cou'd have given you just Ideas of the causes of the Patient's Death, in one we saw a dropsy in the left side of the Thorax, and a curious Polypus with its growing Fimbriæ of 14 Inches in length (now in the Hospital) extending from the Ventricle of the Heart, far beyond the Bifurcation of the Pulmonary Artery, in the other we found the Brain partly separated and the Ventricle on the opposite side to that affected with Paralysis, distended by a large Quantity of Limpid Serum; and you must Remember, that the state of all the Morbid parts were predicted before they were exposed to View; which may have a further Advantage, by rousing in you an industrious pursuit

after the most hidden causes of all the affections of the Human Body; and convince you what injury they do to the living, who oppose a decent painless, and well timed examination of the dead.

"Thus all the professors in the best European Colledges, go hand in hand, and co-operate with each other by regular chains of Reasoning & occasional demonstrations, to the satisfaction & improvement of the Students.

"But more is required of us in this late settled World, where new Diseases often occur, and others common to many Parts of Europe visit us too frequently, which it behoves the Guardians of Health, to be very watchful of, that they may know them well, and by an hearty Union & Brotherly communication of observations investigate their causes & check their progress. The Task is arduous, but 'tis a Debt we owe to our Friends and our Country. The Atmosphere that Surrounds us is fine, and the Air we breathe, free, pure, and Naturally healthy, & I am fully persuaded we shall find on strict enquiry, when it becomes otherwise, 'tis mostly from Contagion imported, or neglected Sources of Putrefaction, amongst ourselves, and therefore whenever we are able to demonstrate the Causes, they may be removed and the Effects prevented.

"Our Fathers after insuring to us the full enjoyment of the inestimable blessing of Religious & Civil Liberty, have settled us in a Country that affords all the real comforts of life, and given us the prospect of becoming one day, a great and happy People, and I know only one Objection to a prudent Man's giving North America the preference to any other part of the British dominions for the place of his residence, which is, that the climate is sometimes productive of severe Epidemic Diseases in the Summer & Fall; the Country is otherwise free from those tedious & dangerous Fevers which frequently infest most parts of Europe. The last wet Summer and a short space of hot dry Weather in Autumn, caused so many Intermittents from the Southern suburbs of this City all the way to Georgia, that I may venture to assert two thirds of the inhabitants were not able to do the least Business for many weeks, and some families & even Townships were so distress'd that they had not well persons sufficient to attend the Sick, during which Time this City was unusually Healthy, how respectable then would be the Characters of those Men, who shoul'd wipe this Stain out of the American Escutcheon and rescue their Country from such frequent calamities.

"Sufficient encouragement to make the attempt, is found both in History, the Books of Physic, and our own Experience. Several instances were recorded of places that were so sickly, as to be uninhabitable until Princes have ordered their Physicians to search

into the causes of this Unhealthiness, and having discover'd and removed them, made thereby valuable additions to their Kingdoms. Was not our Ancient & Great Master, Hippocrates, so knowing in the cause of Pestilential Contagion, as to foresee an approaching Plague, and send his Pupils into the Cities to take care of the Sick, & has not He, and Sydenham the English Hippocrates, done infinite Service to the healing Art, and gained immortal Honors to themselves, by their Essays on Epidemics in which they not only accurately describe the Diseases of their Respective Countries, but show the depraved constitution of the Air which produced each of them. Our own Experience also affords much Encouragement; when I first came into this City the Dock was the Common Sewer of Filth, & was such a Nuisance to the inhabitants about it, every Fall, that they were obliged to use more pounds of Bark, than they have Ounces since it has been raised and levell'd. Another striking instance of the Advantage of Cleanliness for the preservation of Health, affords me an Opportunity of paying a Tribute, justly due, to the Wisdom of the Legislature of this Province, in framing the Salutary Laws for paving & regulating the streets of this City, & to the indefatigable industry & Skill of the Commissioners in executing them, whereby they have contributed so much to the Healthfulness of the Inhabitants, that I am confident the whole Expence will be repair'd in ten years, by lessening the Physic Bills alone. A Farm within a few miles of this City was remarkably healthy for Fifty Years, whilst the Tide overflow'd the Low Lands, near the Dwelling House, but after they were Bank'd by Ditches so ill contrived that they often did not discharge the Water that fell into them for a considerable time, & Until it became putrid, and thereby rendered the place as remarkably Sickly, as it had before been healthy, I was told by a Gentleman of Veracity that he saw the Corps of One of Nine Tenants that had been carried from it in a few years.

"The Yellow Fever, which I take to be exactly the same distemper as the Plague of Athens, described by Thucydides, has been five different times in this City since my residence in it; the causes of three of them I was luckily able to Trace, & am certain they were the same, which produced a Gaol Fever in other Places, & am of opinion the difference betwixt the appearance of these Fevers, arises from the climate, & the different state the Bodies are in when they Imbibe the Contagion; if so, the same methods which are taken to prevent Gaol Fever, will equally prevent a Yellow Fever; 'Twas in the Year Forty one, I first saw that horrid Disease which was then imported by a Number of Convicts from the Dublin Gaol. The second time it prevailed it was indigenous from Evident

causes, & was principally confined to One Square of the City. The third time it was generated on Board of Crowded Ships in the Port, which brought in their Passengers in Health, but soon after became very Sickly. I here saw the appearance of Contagion like a Dim Sparkle which gradually encreased to a Blaze, & soon after burst out into a terrible Flame, carrying Devastation with it, and after continuing two Months was extinguished by the profuse Sweats of Tertian Fevers, but this is not the ordinary course of contagion, 'tis usually checked by the Cool Evenings in Septem'r and dies on the appearance of an October Frost.

"I lately visited an Irish Passenger Vessel, which brought the People perfectly healthy until they came in our River. I found five of them Ill, and others Unwell, & saw that the Fomes of infection was spreading among them. I therefore ordered the Ship to lay at Quarantine, to be well purified with the Streams of Sulphur, & with Vinegar, directed the Bedding and Cloathing of the People to be well wash'd & Air'd before any person should be permitted to land out of her, after which I advised separating the Sick from the Healthy. This was done by putting twelve in different Rooms in one House, & fourteen in another, out of the City, the conveniences of the two Houses were much the same, in one of them little care was taken of the sick, who were laid upon the same foul beds, they (contrary to orders) brought on shore with them; the consequence was, that all the Family catch'd the distemper, & the Landlord Died. In the other my directions were Strictly observed, the Sick had clean Clothes, & clean Bedding, were well attended, and soon Recovered, without doing the least Injury to any person that visited them; which confirms observations I had often made before, that the Contagion of Malignant Fevers lies in the Air confined & corrupted by a neglect of Rags & other filth about the Helpless Sick, & not from their Bodies. As each of these heads shall be a Subject of a future Lecture, I shall at present only mention to you further, a few of those Methods which have preserved Individuals from prevailing diseases.

"The inhabitants of Hispaniola have found the wearing Flannel shirts to be a preservative against Intermittent Fevers to that sickly Island, & as that Disease is known to arise principally from inhaling a great Quantity of the Humidity of the Air, I make no doubt 'twould also be of use in preventing them in our low moist, level countries.

"We know that the Bark of Sassafras contains many Excellent Medicinal Virtues, my Worthy Friend Mr. Peter Franklin says that he being in the Fall of the Year in the River Nantikoke in Maryland, & on seeing the People on Shore much afflicted with in-

permitting Fevers, advised the Marriners of the Ships to drink freely, by way of prevention, of that Aromatic and Antiseptic Medicine, but coul'd not prevail on more than half the company to do it, & that he & all the others who took it, enjoy'd perfect Health, whilst not a single Person of the rest escaped a severe attack of Epidemic Disease, I have Known other similar Instances, which 'tis needless to mention, since his is remarkably pertinent.

"But I have many reasons to expect that a more agreeable & equally certain preventive against our Autumnal Fevers, will be found in Sulphures Chalybeate Waters, which may readily be procured in most parts of America, especially where those Diseases are most prevalent. A spring of this Kind at Gloucester within a few Miles of this Place has been much used of late, and has been so very serviceable to Invalids, it has the appearance of being a valuable Conveniency to the City. Persons under various Diseases took Lodgings in the Village the last Season, for the advantage of drinking the Waters at the Fountain head, & though the Fall was more sickly than has ever been known in the Memory of Man, not one, who went there for health, nor any one of the Inhabitants near the Spaw, who drank freely, had a touch of the prevailing Disease, whilst a Major part of those that did not, had more the appearance of Ghosts than living Creatures. There were two Houses the Habitations of Father & Son, within twenty feet of each other, the Family of the father had suffered greatly from Intermitting Fevers the preceding Fall, & some of them continued Invalids 'till the middle of Summer, when they were prevailed on, to take the Waters, after which they daily recovered Health, Bloom & Vigour; & passed the sickly Season without a Complaint, whilst scarcely a person in that of the Son, who did not take them, escaped a severe Illness. 'Tis well known from experience that Mineral Waters are not only the most Palatable, but the most Salutary parts of the Materia Medica, & that the effect of those which are pure & properly impregnated with Chalybeate Principles, strengthen digestion brace & counteract the Summers Sun, dilute a thick putrid Bile (the instrument of mischief in all climates) and immediately wash away putrefaction through the Emunctories of the Bowels, Skin, or kidneys and therefore appear to be natural preservatives against the effect of an hot, moist & putrid Atmosphere. Whether these Waters will answer my sanguine expectations or not, must be left to the Decision of Time. If they should be found wanting, that ought not to discourage our further pursuit, for since providence has furnished every country with defences for the Human Bodies, against the inclemencies of Heat & Cold, why shou'd we Question whether infinite Wisdom

& Goodness has made equal Provision against all other natural injuries of our Constitutions; Experience and Reason, encourages us to believe it has, & that the means might be discovered by diligent investigation were our researches equal to the Task, the above instances are therefore related to convince you, that the prevention of some of the Epidemic diseases of America is not only a laudable & rational Pursuit, but is more within the limits of human precaution than has generally been imagined, and to excite your particular attention to the improvement of this Humane and interesting part of your profession, in which, & all other useful undertakings I most sincerely wish you success.

"I am now to inform you, Gentlemen, that the Managers & Physicians of the Pennsylvania Hospital, on seeing the great number of you attending the School of Physic in this City, are of opinion, this excellent institution likewise affords a favourable opportunity of further improvement to you in the practical part of your Profession, and being desirous it should answer all the good purposes intended by the generous contributors to it, have allotted to me the Task of giving a course of Clinical & Meteorological Observations in it; which I cheerfully undertake (though the season of my Life points out relaxation and retirement rather than new Incumbrances,) in hopes, that remarks on the many curious cases that must daily occur, amongst an Hundred & thirty sick persons, collected together at one time, may be very instructive to you. I therefore propose to meet you at stated times here, & give you the best information in my Power of the nature & treatment of Chronical Diseases, and of the proper management of Ulcers, Wounds and Fractures, I shall show you all the Operations of Surgery, & endeavour, from the Experience of Thirty Years to introduce you to a Familiar acquaintance with the acute diseases of your own country, in order to which, I shall put up a compleat Meteorological Apparatus, & endeavour to inform you of all the known Properties of the atmosphere which surrounds us, & the effects its frequent variations produce on Animal Bodies, and confirm the Doctrine, by an Exact register of the Weather, of the prevailing Diseases, both here, & in the Neighbouring Provinces, to which I shall add, all the interesting observations which may occur in private practice, and sincerely wish it may be in my power to do them to your satisfaction."

These lecture courses of Dr. Bond's proved highly successful and were attended by many students. There seems at times to have been considerable difficulty in the

collection of fees from the students for the attendance, so that on April 2, 1770, the Board of Managers passed a resolution that no student should be permitted to attend who could not show a certificate stating that his fee had been paid. In 1774 the cost of the clinical lecture was made five pounds per course to "all students attending lectures, and not apprenticed to physicians."

One of the most picturesque of the physicians and teachers in the early history of medicine in Philadelphia was Dr. Abraham Chovet. He was born in England, May 25, 1704, received his medical education in that country, and on August 31, 1735, he was appointed demonstrator of anatomy in the United Company of Barbers and Surgeons. Afterwards he went to the West Indies and lived for some time in Jamaica. In 1770 he and his family were obliged to flee from the island owing to a slave insurrection, and they settled in Philadelphia.

The following description of the old doctor's appearance was given to Watson,⁶ the annalist, by one who had often seen him:

"This aged physician was almost daily to be seen pushing his way in spite of his feebleness, in a kind of hasty walk, or rather shuffle, his head and straight white hair bowed and hanging forward beyond the cape of his black old-fashioned coat, mounted by a small cocked hat, closely trimmed upward upon the crown behind, but projectingly and out of all proportion cocked before, and seemingly the impelling cause of his anxious forward movements, his lips, closely compressed (sans teeth) together, were in constant motion, as though he were munching something all the time; his golden-headed Indian cane, not used for his support, but dangling by a black silken string from his wrist; the ferule of his cane and the heels of his capacious shoes, well lined in winter time with thick woollen cloth, might be heard jingling and scraping the pavement at every step; he seemed on the street always as one hastening

⁶ Annals of Philadelphia.

as fast as aged limbs would permit him to some patient dangerously ill, without looking at any one passing him to the right or left."

The Pennsylvania Hospital still possesses a wax medalion of him, made on his eightieth birthday, which bears the following inscription: "Abraham Chovet, born May 25, 1704, drawn May 25, 1784, by his servant, Dr. Eckhout."

The old gentleman was a great wit, and many amusing anecdotes have descended concerning him. He was noted for his use of expletives, which, Watson says, were held to be "neither useful nor ornamental." Several of the stories of his humor are worthy of repetition. Happening one day to be overtaken by a rain-storm when at the house of Samuel Fisher, a well-known Quaker, the latter lent him his own greatcoat on the condition that while he was in it he was to use no oaths, to which the doctor agreed. When he brought back the coat, Fisher said, "Well, doctor, didst thou swear whilst thou hadst on my coat?" "No," replied the doctor, "but there was a damnable disposition to lie." He was a notorious Tory, but seems to have been humored in the expression of his opinions even by advanced patriots.

In the appendix of "Christopher Marshall's Diary"[†] the two following stories are quoted from the *New York Gazette* for 1828: Dr. Chovet one day entered the coffee-house, with an open letter in his hand, at the hour when many merchants were in the habit of gathering there.

"On seeing the Doctor they all surrounded him, enquiring what news he had in that letter. . . . In reply to this inquiry, he said that the letter contained information of the death of an old cobbler in London, who had his stall in one of the by-streets, and asked the gentlemen what they supposed the cobbler had died worth. One said £5000, another £10,000, and another £20,000 sterling. 'No, gen-

[†] Edited by William Duane, Philadelphia, 1839.



DR. ABRAHAM CHOVET.

(Reproduced from Norris's "Early History of Medicine in Philadelphia.")

tllemen, no; you are all mistaken; not one farthing, gentlemen;' running out, laughing at the joke at the expense of the collected mercantile wisdom of the city."

"Another time having been sent for to the Spanish Minister, Don Juan Mirailles, who resided in old Mr. Chew's house, in Third Street, between Walnut and Spruce streets, the weather being rather unpleasant, the Minister ordered his carriage to the door to convey the Doctor home. The Doctor, full of fun and joke, directed the coachman to drive by the Coffee House, which, as he approached, was perceived by the merchants, who immediately drew up in order, hats off, to pay their respects to Don, as minister from a friendly power. The Doctor kept himself close back in the carriage until directly opposite the coffee-house, the gentlemen all bowing and scraping, when he pops his head. 'Good morning, gentlemen, good morning; I hope you are well; thank you in the name of his Majesty, King George,' and drove off, laughing heartily at having again joked with the Philadelphia Whigs."

At the time when the mob carted Dr. John Kearsley, Jr., the son of the architect of Christ Church, and a violent Tory, through the streets, Chovet only escaped the same fate by hiding in the stable of Mr. Marshall. As a rule, however, Dr. Chovet, so far as his politics were concerned, seems to have been regarded as an amusing and eccentric old gentleman whose idiosyncrasies were harmless. He certainly never endured the gross indignities which befell so many of his fellow-Tories.

Dr. Chovet brought from England a collection of wax models and dried and injected anatomical preparations, and in the winter season of 1774-75 he delivered a series of anatomic lectures illustrated by them, of which he made the following announcement:

"AT THE ANATOMICAL MUSEUM

in Videl's Alley, Second Street, on Wednesday, the Seventh of December at six in the evening

DR. CHOVET

will begin his course of Anatomical and Physiological Lectures, in which the several parts of the human body will be demonstrated,

with their mechanism and actions, together with the doctrines of life, health and the several effects resulting from the actions of the parts; on his curious collection of Anatomical wax-works, and other natural preparations; to be continued the whole winter until the course is completed. As this course cannot be attended with the disagreeable sight or smell of recent disease and putrid carcases, which often disgust even the students in Physick, as well as the curious, otherwise inclined to this useful and sublime part of natural philosophy, it is hoped this undertaking will meet with suitable encouragement.

"Tickets to be had for the whole course at Dr. Chovet's house in Second Street, Philadelphia."

On November 24, 1783, Dr. John Foulke received permission from the board of managers of the Pennsylvania Hospital to use one of the upper rooms of the building known as the "elabratory" of the hospital for the purpose of giving lectures on "Chirurgical and Physical subjects during the season." He was not only, according to Watson, reckoned "the best surgeon of his day," but also "the next best skater" in the city; "skating 'High Dutch,' and being able to cut his own name at one flourish, constituted the Doctor's fame as a skater." In 1784 he opened "An Anatomical Hall," with a "determination to put the character of a Philadelphia anatomist upon a higher footing than it had ever before been," also asserting, "that in his pursuit he was determined to observe every attention to decency, solemnity and punctuality." The charge was twelve dollars a course. He continued giving these courses of lectures until his death, in 1796, and they seem to have been very largely attended.

There were several other lecture courses given in Philadelphia towards the end of the last century which are worthy of note, indicating what an active centre the city was in the development of medical education on this continent. Dr. John Hannum Gibbon, who was a Pennsylvanian by birth, graduated from the University of



Library and Surgeons' Hall on Fifth Street, Philadelphia, 1799.

Edinburgh, in the medical department, in 1786; returned to this country and married a Miss Heysham, of Philadelphia, after which he settled in the latter city, on Arch Street. In 1789 and for some years afterwards he lectured on the "Theory and Practice of Medicine." He died at the early age of thirty-six years, on October 5, 1795. There were lectures on midwifery, delivered by Dr. Benjamin Duffield, from 1793 until his death in 1799. Dr. Duffield also lectured on "Diseases of Hospitals and Jails" and "The American Practice of Physic." According to Norris, Drs. Church and James continued his obstetric lectures after his death. The same authority speaks of a course of lectures by Dr. Price, of London, delivered in Philadelphia towards the close of the century, on "The Theory and Practice of Physick" and "Midwifery and the Diseases of Women and Children," and of the course on obstetrics given by Dr. Dewees in 1797.

CHAPTER V.

THE EARLIEST MEDICAL SCHOOLS IN THE UNITED STATES.

The Medical Department of the University of Pennsylvania.

THE College of Philadelphia was founded in 1749, and had been in existence for sixteen years before a medical department was organized in connection with it. The credit of the foundation of the Medical Department is chiefly due to Dr. John Morgan. He was born in 1736 and received the degree of A.B. from the College of Philadelphia in 1757, with the first class that graduated from that institution. He studied medicine with Dr. Redman and then served as surgeon in the war against the French. In 1760 he resigned from the army and went to Europe to pursue his medical studies. In the preface to his "Discourse upon the Institution of Medical Schools in America"¹ he speaks of the preparation he had undergone for his career as a teacher as follows:

"It is now more than fifteen years since I began the study of medicine in this city, which I have prosecuted ever since without interruption. During the first years I served an apprenticeship

¹A Discourse upon the Institution of Medical Schools in America, delivered at a Public Anniversary Commencement, held in the College of Philadelphia, May 30 and 31, 1765, with a Preface, containing, amongst other things, the Author's Apology for Introducing the Regular Mode of Practising Physick in Philadelphia. By John Morgan, M.D., &c., and Professor of the Theory and Practice of Medicine in the College of Philadelphia. Printed and sold by William Bradford: 1765.



DR. JOHN MORGAN.

(Reproduced from Morris's "Early History of Medicine in Philadelphia.")

with Dr. Redman, who then did, and still continues to enjoy a most justly acquired reputation in this city for superior knowledge and extensive practice in physic. At the same time I had an opportunity of being acquainted with the practice of other eminent physicians in this place, particularly of all the physicians to the hospital, whose prescriptions I put up there above the space of one year. The term of my apprenticeship being expired, I devoted myself for four years to a military life, principally with a view to become more skilful in my profession, being engaged the whole of that time in a very extensive practice in the army amongst diseases of every kind. The last five years I have spent in Europe, under the most celebrated masters in every branch of medicine, and spared no labor or expense to store my mind with an extensive acquaintance in every science that related in any way to the duty of a physician; having in that time expended in this pursuit a sum of money of which the very interest would prove no contemptible income. With what success this has been done, others are to judge and not myself."

While abroad he was elected a member of the Royal Society, and was admitted to membership in the College of Physicians of Edinburgh and as a licentiate of the College of Physicians of London. He was also elected a member of the Society of Belles-Lettres of Rome. He seems to have had while studying abroad the definite purpose of fitting himself for a career as a teacher of medicine.

Carson² quotes from Thompson's *Life of Cullen* the following extract from a letter written by Morgan to Cullen from London, November 10, 1764:

"I am now preparing for America, to see whether, after fourteen years devotion to medicine, I can get my living without turning apothecary or practitioner of surgery. My scheme of instituting lectures you will hereafter know more of. It is not prudent to broach designs prematurely, and mine are not yet fully ripe for execution."

² History of the Medical Department of the University of Pennsylvania.

Dr. Morgan's chief associate in his scheme for founding a medical school was Dr. William Shippen, Jr., who was also a native of Philadelphia, where he was born in 1736. As before mentioned, he graduated from the College of New Jersey, as Princeton was then called. He studied medicine under his father, and then, in 1757, went to Europe to complete his medical education. In London he studied under the two Hunters, Hewson, and McKenzie, and received his degree of M.D. from the University of Edinburgh in 1761, and returned to this country in 1762. Undoubtedly he and Morgan, whilst pursuing their studies together abroad, had talked over a medical school in their native city. When Morgan returned to Philadelphia in 1765 he brought the following letter from Thomas Penn to the Board of Trustees of the College of Philadelphia. It was presented to the Board of Trustees at their meeting on May 3, 1765.

"GENTLEMEN:

"Dr. Morgan has laid before me a proposal for introducing new professorships into the Academy for the instruction of all such as shall incline to go into the study and practice of Physic and Surgery, as well as the several occupations attending upon these useful and necessary arts. He thinks his scheme, if patronized by the Trustees, will at present give reputation and strength to the Institution, and though it may for some time occasion a small expense, yet after a little while it will gradually support itself, and even make considerable additions to the Academy's funds. Dr. Morgan has employed his time in an assiduous search after knowledge in all the branches necessary for the practice of his profession, and has gained such an esteem and love from persons of the first rank in it, that as they very much approve his system, they will from time to time, as he assures us, give him their countenance and assistance in the execution of it.

"We are made acquainted with what is proposed to be taught, and how the lectures may be adopted by you, and since the like systems have brought much advantage to every place where they have been received, and such learned and eminent men speak favorably of the doctor's plan, I could not but in the most kind manner

recommend Dr. Morgan to you, and desire that he may be well received, and what he has to offer be taken with all becoming respect and expedition into your most serious consideration, and if it shall be thought necessary to go into it, and thereupon to open Professorships, that he may be taken into your service. When you have heard him, and duly considered what he has to lay before you, you will be best able to judge in what manner you can serve the public, the Institution, and the particular design now recommended to you.

"I am, Gentlemen, your very affectionate friend

"THOMAS PENN.

"LONDON, February 15th, 1765."

Dr. Morgan also gave the Board of Trustees letters which he had procured from James Hamilton and Richard Peters, former trustees of the institution, but at that time living in England.

Dr. Morgan's project met with the immediate approval of the board, and Dr. Norris³ transcribes their minute on this occasion, which was as follows:

"COLLEGE OF PHILADELPHIA, May 3rd, 1765.

"At a meeting of the Trustees held this day, John Morgan, of this city, M.D., corresponding member of the Royal Academy of Surgery at Paris, Licentiate of the Royal College of Physicians at London, and member of the Arcadian (Belles Lettres) Society at Rome, was unanimously elected Professor of the Theory and Practice of Medicine in the College of Philadelphia. At the ensuing commencement he will deliver an address (which will be soon afterwards published), in order to show the expediency of instituting medical schools in this seminary, and containing the plan proposed for the same; in which there will be room for receiving professors duly qualified to read lectures in the other branches of medicine, who may be desirous of uniting to carry this laudable design into execution. *Dr. Morgan's Plan* has been warmly recommended to the Trustees by persons of eminence in England, and his known abilities and great industry give the utmost reason to hope it will be successful, and tend much to the public utility."

On the 30th of May of the same year Dr. Morgan delivered his "Discourse upon the Institution of Medical

³ Early History of Medicine in Philadelphia.

Schools in America." He had written this when in Paris, and it had undergone a careful scrutiny by Dr. Fothergill, Dr. Hunter, and Dr. Watson, of London. In it he recommended a very comprehensive preliminary education preparatory to the study of medicine. He mentioned the many advantages possessed by Philadelphia as a medical centre, pointing to the Pennsylvania Hospital, the only institution of that kind then established, and calling attention to the many eminent Philadelphia medical men who adorned the profession. Dr. Morgan's address contained the following prophecy, which has been so amply fulfilled:

"Perhaps this Medical Institution, the first of its kind in America, though small in the beginning, may receive a constant increase of strength, and annually exert new vigour. It may collect a number of young persons, of more than ordinary abilities, and so improve their knowledge as to spread its reputation to distant parts. By sending these abroad duly qualified, or by exciting an emulation amongst men of parts and literature, it may give birth to other useful Institutions of a similar nature, or occasional rise, by its example, to numerous societies of different kinds, calculated to spread the light of knowledge through the whole American Continent, wherever inhabited."

It required two sittings to get through the Commencement, one on the 30th, the second on the 31st of May. The discourse was delivered partly on the first and partly on the second day. The event was held in the Academy building on Fourth Street near Arch.

In September, 1765, Dr. William Shippen, Jr., was elected Professor of Anatomy and Surgery. He had applied for the position in the following letter:

"TO THE TRUSTEES OF THE COLLEGE, ETC.

"The instituting of medical schools in this country has been a favorite object of my attention for seven years past, and it is three years since I proposed the expediency and practicability of teach-

ing medicine in all its branches in this city, in a public oration, read at the State House, introductory to my first course of Anatomy.

"I should have long since sought the patronage of the Trustees of this College, but waited to be joined by Dr. Morgan, to whom I first communicated my plan in England, and who promised to unite with me in every scheme we might think necessary for the execution of so important a point. I am pleased, however, to hear that you gentlemen, on being applied to by Dr. Morgan, have taken the plan under your protection, and have appointed that gentleman Professor of Medicine.

"A professorship of Anatomy and Surgery will be gratefully accepted by, gentlemen, your most obedient and humble servant

"WILLIAM SHIPPEN, JR.

"PHILADELPHIA, 17th September, 1765."

The following announcement appeared in the *Pennsylvania Gazette* of September 26, 1765:

"As the necessity for cultivating medical knowledge in America is allowed by all, it is with pleasure we inform the public that a Course of Lectures on two of the most important branches of that useful science, viz., Anatomy and Materia Medica, will be delivered this winter in Philadelphia. We have great reason, therefore, to hope that gentlemen of the Faculty will encourage the design by recommending it to their pupils, that pupils themselves will be glad of such an opportunity of improvement, and that the public will think it an object worthy their attention and patronage. In order to render these courses the more extensively useful, we intend to introduce into them as much of the Theory and Practice of Physic, of Pharmacy, Chemistry, and Surgery as can be conveniently admitted.

"From all this, together with an attendance on the practice of the physicians and surgeons of the Pennsylvania Hospital, the students will be able to prosecute their studies with such advantage as will qualify them to practice hereafter with more satisfaction to themselves and benefit to the community.

"The particular advertisements inserted below specify the time when these lectures are to commence, and contain the various subjects to be treated of in each course, and the terms on which pupils are to be admitted.

"WILLIAM SHIPPEN, JR., M.D.

"Professor of Anatomy and Surgery in the College of Philadelphia

" JOHN MORGAN, M.D., F.R.S., Etc.

" Professor of Medicine in the College of Philadelphia.

"Dr. Shippen's course of anatomical lectures will begin on Thursday, the 14th of November, 1765; it will consist of about sixty lectures, in which the situation, figure, and structure of all parts of the human body will be demonstrated on the fresh subject, their respective uses explained, and their diseases, with the indications and methods of cure, briefly treated of; all the necessary operations of Surgery will be performed, a course of bandages given; and the whole concluded with a few plain and general directions in the practice of midwifery. Each person to pay six pistoles.

"Those who incline to attend the Pennsylvania Hospital, and have the benefit of the curious anatomical plates and casts there, to pay six pistoles to that useful charity.

"A course of lectures on the *Materia Medica* by John Morgan, M.D., etc. Price four pistoles.

"This course will commence on Monday, the 18th day of November, and be given three times a week at the College, at three o'clock in the afternoon, till finished, which will last between three and four months.

"To render these lectures as instructive as possible to students of physic, the Doctor proposes, in the course of them, to give some useful observations on Medicine in general, and the proper manner of conducting the study of physic. The authors to be read in the *Materia Medica* will be pointed out. The various substances made use of in medicine will be reduced under classes suited to the principal indications in the cure of diseases. Similar virtues in different plants, and their comparative powers will be treated of, and an inquiry made into the different methods which have been used in discovering the qualities of medicines, the virtues of the most efficacious will be particularly insisted upon; the manner of preparing and combining them will be shown by some instructive lessons upon pharmaceutical chemistry. This will open to students a general idea of both chemistry and pharmacy. To prepare them more effectually for understanding the art of prescribing with elegance and propriety, if time allows, it is proposed to include in this course some critical lectures upon the chief preparations contained in the Dispensatories of the Royal College at London and Edinburgh. The whole will be illustrated with many useful practical observations on Diseases, Diet, and Medicines.

"No person will be admitted without a ticket for the whole course. Those who propose to attend this course are desired to apply to the Doctor at least a week before the lectures begin. A

dollar will be required of each student to matriculate, which will be applied to purchase books for a medical library in the College for the benefit of the medical students."

There was at one time a disposition to award the credit of the idea of founding a medical school in Philadelphia to Dr. Shippen, but Dr. Norris disposes very effectually of the claims put forth on his behalf. In Dr. Shippen's introductory lecture to his course on anatomy, which he delivered in the State House in 1762, he mentioned the founding of a medical school, and in reference to the difficulties under which the study of medicine was pursued in this country at that time he said,—

"All these may, and I hope will soon be remedied by a medical school in America, and what place in America so fit for such a school as Philadelphia, that bids so fair by its rapid growth to be soon the metropolis for all the continent. Such a school is properly begun by an anatomical class, and for our encouragement, let us remember that the famous school of physic at Edinburgh, which is now the first in Europe, has not had a beginning fifty years, and was begun by the anatomical lectures of Dr. Monro, who is still living."

Norris quotes from the "Discourse" of Dr. Morgan, delivered in 1765, as follows:

"It is with the highest satisfaction I am informed from Dr. Shippen, junior, that in an address to the public as introductory to his first anatomical course, he proposed some hints of a plan for giving medical lectures amongst us. But I do not learn that he recommended at all a collegiate undertaking of this kind. What led me to it was the obvious utility that would attend it, and the desire I had of presenting, as a tribute of gratitude to my Alma Mater, a full and enlarged plan for the institution of medicine in all its branches, in this seminary, where I had part of my education, being among the first sons who shared in its public honors. I was further induced to it from a consideration that private schemes of propagating knowledge are unstable in their nature, and the cultivation of useful learning can only be effectually promoted under those who are patrons of science, and under the authority and direction of men incorporated for the improvement of literature. . . . Dr. Shippen

having been concerned already in tending that branch of medical science, is a circumstance favourable to our wishes. Few here can be ignorant of the great opportunities he has had abroad of qualifying himself in anatomy, and that he has already given three courses thereof in this city, and designs to enter upon a fourth course next winter."

Norris justly comments on their statements,—

"Dr. Shippen introduced and successfully taught a single branch of medicine in 1762, but took no steps for the establishment of a medical institution upon a permanent basis. Dr. Morgan arrived at home in April, 1765, and in the following month proposed to the Trustees of the College *His Plan* for translating medical science into their seminary, and boldly urged upon them a full and enlarged scheme for the institution of medicine in all its branches."

In 1766 Dr. Shippen began his course on the 18th of September, and Dr. Morgan his on the 25th of the same month. Morgan's course was announced as follows:

"A Course of Lectures on the Theory and Practice of Physic will be delivered for the benefit of medical students, with a preparatory course on Botany, Chemistry, and the *Materia Medica*, being the substance of a set of lectures delivered to his pupils last winter."

As Carson⁴ says, "This, then, in reality was the first course of lectures on the practice of medicine."

In 1766 the Board of Trustees of the College awarded a gold medal to Dr. Morgan for a prize essay, concerning which Carson quotes the following advertisement:

"COLLEGE OF PHILADELPHIA, March 6th, 1766.

"Whereas, John Sargent, Esq., Merchant of London and Member of Parliament, hath presented to this College a Gold Medal for the best English Essay on the reciprocal advantages of a perpetual union between Great Britain and the American Colonies, notice is hereby given by order of the Trustees, that the said Medal will be

⁴History of the Medical Department of the University of Pennsylvania.

disposed of at the ensuing Commencement in May, for the best Essay that shall be produced on the subject proposed, by any one of those who have received any degree or part of their education in this College; and, as the said subject is one of the most important which can at this time employ the pen of the patriot or scholar, and is thus left open to all those who have had any connection with this College, either as students or graduates, it is hoped for the honor of the Seminary as well as their own, they will nobly exert themselves on a subject so truly animating, which may be treated in a manner alike interesting to good men, both here and in the Mother Country."

Dr. Morgan won the prize over eight other competitors.

In 1767 the following rules for the school of medicine were drawn up by the medical men of the Board of Trustees, with Provost William Smith and Drs. Morgan and Shippen. They were adopted at a meeting of the Board of Trustees on May 12, 1767, and were subsequently published in the *Pennsylvania Gazette*.

"COLLEGE OF PHILADELPHIA, July 27th, 1767.

"At a meeting of the Trustees, held the twelfth day of May last, it being moved to the Board that conferring the usual degrees in Physic on deserving students will tend to put the Practice of Physic on a more respectable footing in America; the motion was unanimously agreed to; and the following Course of Studies and Qualifications, after mature deliberation, was fixed on and enacted as requisite to entitle physical students to their different degrees.

"*For A Bachelor's Degree In Physic:—*

"1. It is required that such students as have not taken a Degree in any College shall, before admission to a degree in Physic, satisfy the Trustees and Professors of the College concerning their knowledge in the Latin tongue, and in such branches of Mathematics, Natural and Experimental Philosophy as shall be judged requisite to a medical education.

"2. Each student shall attend at least one course of lectures in Anatomy, Materia Medica, Chemistry, the Theory and Practice of Physic, and one course of Clyrical [*sic*] Lectures, and shall attend the Practice of the Pennsylvania Hospital for one year, and may then be admitted to a Public Examination for a Bachelor's Degree in Physic, provided that on previous examinations by the Medical Trustees and Professors, such students shall be judged fit to undergo

a public examination without attending any more courses in the Medical School.

"3. It is further required that each student previous to the Bachelor's Degree, shall have served a sufficient apprenticeship to some reputable Practitioner in Physic, and be able to make it appear that he has a general knowledge in Pharmacy.

"Qualifications For A Doctor's Degree In Physic:—

"It is required for this Degree that at least three years have intervened from the time of taking the Bachelor's Degree, and that the Candidate be full twenty-four years of age, and that he shall write and defend a Thesis publicly in the College, unless he should be beyond the seas, or so remote on the Continent of America as not to be able to attend without manifest inconvenience; in which case, on sending a written thesis, such as shall be approved of by the College, the candidate may receive the Doctor's Degree, but his thesis shall be printed and published at his own expense.

"FEES TO PROFESSORS.

"No Professor to take more than six Pistoles for a single course, in any of the above branches, and after two courses, any student may attend as many more as he pleases gratis.

"This scheme of a Medical Education is proposed to be on as extensive and liberal a plan, as in the most respectable European Seminaries, and the utmost provision is made for rendering a Degree, a real mark of honour, the reward only of distinguished Learning and Abilities. As it is calculated to promote the benefit of mankind by the improvement of the beneficent art of Healing, and to afford an opportunity to students of acquiring a regular medical education in America, it is hoped it will meet with public encouragement, more especially as the central situation of this city, the established character of the Medical Professors, the advantages of the College, and the public hospital, all conspire to promise success to the design. For the advantage of medical students, a course of lectures will be given by the Professor of Natural and Experimental Philosophy each winter in the College, where there is an elegant and compleat apparatus provided for that purpose; and where medical students may have an opportunity of completing themselves in languages, or any parts of the Mathematics at their leisure hours.

"Agreeably to the foregoing regulations the public is now informed, that on the first Monday in November next, the following courses of lectures will be begun by the respective Professors, viz:—A compleat course of lectures on Anatomy, to which will be added all the operations in surgery, and the mode of applying all the necessary bandages, etc. A course of Lectures on the Theory and Prac-

tice of Medicine, which will be preceded by a general explanation of the theory of Chemistry, accompanied with some necessary operations, to render a knowledge of this science easy and familiar to the inquisitive student.

"A course of clynical lectures, to be delivered in the Pennsylvania Hospital, wherein the treatment of both acute and chronic diseases will be exemplified in the cases of a good number of patients.

"Each course of lectures will be finished by the beginning of May, in time for those who intend to offer as candidates for a Degree in Physic, to prepare themselves for the examination before the commencement of the ensuing year.

"Such gentlemen as incline to attend the above courses are desired to apply some days before the Lectures begin, to furnish themselves with the necessary tickets of admission."

The value of Dr. Bond's clinical lectures was much appreciated by the Board of Trustees of the hospital, as in May, 1768, the following entry is found in the minutes of their meetings:

"Dr. Bond is requested by the Trustees and Professors to continue his Clynical Lectures at the Hospital, as a Branch of Medical Education judged to be of great importance and benefit to the students."

Carson could not find any record that Dr. Bond was ever appointed to a professorship in the Medical College, but he continued to deliver these lectures at the Pennsylvania Hospital until his death in 1784.

The provost of the College, the Rev. Dr. William Smith, delivered the course of lectures upon natural philosophy. The following announcement was issued regarding them:

"COLLEGE OF PHILADELPHIA, December 17th, 1767.

"At the request of the Medical Trustees and Professors, the subscriber having last winter opened a course of Lectures in Natural and Experimental Philosophy, for the benefit of the Medical Students, which he hath engaged to continue this winter on an extensive plan, notice is hereby given that on Monday, the 28th inst. at 12 oc.,

it is proposed to deliver the Introductory Lecture at the College. As these lectures are instituted and given gratis, with the view to encourage the medical schools lately opened, and to extend the usefulness and reputation of the College, any gentlemen who have formerly been educated in this Seminary, and are desirous of renewing their acquaintance with the above mentioned branches of knowledge, will be welcome to attend the course. To the standing use of the large apparatus belonging to the College, Mr. Kinnersley has engaged to add the use of his electrical apparatus which is fixed there, and to deliver the lectures on electricity himself, as well as to give his occasional assistance in other branches; so that with their advantages, and the many years experience of the subscriber in conducting lectures of this kind, it is hoped the present course will answer the design of its institution and do credit to the Seminary.

“W. SMITH.

“N.B. An evening lecture in some branches of Mathematics, preparatory to the philosophical course, is opened at the College.”

As regards the fees paid by students we have at first only the advertisements of the individual professors as a guide. According to Carson, the first regulation respecting fees by the Board of Trustees is found in their minutes of May 17, 1768, and is as follows:

“The following Rules brought forward by the Medical Committee were agreed to, viz:—

“1. Such Medical Students as propose to be Candidates for Degrees, and likewise such other Medical Students as shall attend the Natural Philosophy Lectures now given by the Provost, and whose names have never been entered in the College, shall enter the same, and pay the usual sum of Twenty Shillings Matriculation Money.

“2. Every student on taking the Degree of Bachelor of Physic shall pay not less than one Guinea to each Professor he has studied under in the College from the time of his entering the Medical Classes; and likewise the usual Fees for the seal to his Diploma, and for the increase of the Library.

“3. Each Medical Student who shall pay one Dollar for the use of the Library (exclusive of the Fee of Commencements) shall have his name entered, and have the free use of the Books belonging to the Medical Library of the College during his continuance at the same and attendance of lectures under the Medical Professors.”

The fees for single courses under the various professors had been previously ordered not to exceed six pistoles, or twenty dollars, a course.

The first Commencement of the Medical Department was held on June 21, 1768, and Carson reprints from the minutes of the Board of Trustees the following interesting account of the occasion :

" This day may be considered as the Birth-day of Medical Honors in America. The Trustees being met at half an hour past nine in the forenoon, and the several Professors and Medical Candidates, in their proper Habits, proceeded from the Apparatus Room to the Public Hall, where a polite assembly of their fellow-citizens were convened to honor the Solemnity. The Provost having there received the Mandate for the Commencement from his Honor the Governor, as President of the Trustees, introduced the business of the day with Prayers and a short Latin Oration, suited to the occasion. The part alluding to the School of Medicine is in the following language :—

" ' Oh! Factum bene! Vos quoque Professores Medici, qui magno mummi, temporis et laboris sumpter, longa quoque peregrinatione per varias regiones, et populos, domum reduxistis et peritiam, et nobile consilium servandi, et rationali praxi, docendi alios servare valetudinem vestrum civium Gratum fecistis omnibus, sed pergratum certe peritis illis medicis qui artis suæ dignitatis conscii, praxin rationalem, et juventutis institutionem in re medica liberalem, hisce regionibus, ante vos longe desideraverunt.' "

" To this succeeded—

" 1. A Latin oration, delivered by Mr. John Lawrence, ' De Honoribus qui in omni ævo in veros Medicinæ cultores collati fuerint.' "

" 2. A dispute whether the Retina or Tunica Chorides be the immediate seat of vision? The argument for the Retina was ingeniously maintained by Mr. Cowell; the opposite side of the question was supported with great acuteness by Mr. Fullerton, who contended that the Retina is incapable of the office ascribed to it, on account of its being easily permeable to the rays of light, and that the choroid coat, by its being opaque, is the proper part for stopping the rays, and receiving the picture of the object.

" 3. *Questio, num detur Fluidum Nervosum?* Mr. Duffield held the affirmative, and Mr. Way the negative, both with great learning.

" 4. Mr. Tilton delivered an essay ' On Respiration,' and the manner in which it was performed did credit to his abilities.

"5. The Provost then conferred the degree of Bachelor of Medicine on the following gentlemen, viz: Messrs. John Archer, of New Castle County; Benjamin Cowell, of Bucks; Samuel Duffield and Jonathan Potts, of Philadelphia; Jonathan Elmer, of New Jersey; Humphrey Fullerton, of Lancaster County; David Jackson, of Chester County; John Lawrence, of East Jersey; James Tilton, of Kent County, Delaware; and Nicholas Way, of Wilmington.

"6. An elegant valedictory oration was spoken by Mr. Potts, 'On the Advantages derived in the Study of Physic, from a previous liberal education in the other sciences.'

"The Provost then addressed the Graduates in a brief Account of the present state of the College, and of the quick progress in the various extensive establishments it hath already made. He pointed out the general causes of the advancement as well as decline of literature in different Nations of the World, and observed to the Graduates, that as they were the first to receive medical honors in America, on a regular Collegiate plan, it depended much on them, by their future conduct and eminence, to place such honors in estimation among their countrymen; concluding with an earnest appeal that they would never neglect the opportunities which their profession would give them, when their art could be of no further service to the body, of making serious impressions on their patients, and showing themselves men of consolation and piety, especially at the awful approach of death, which could not fail to have singular weight from a lay character.

"Dr. Shippen, Professor of Anatomy and Surgery, then gave the remainder of the charge, further inviting the Graduates to support the dignity of their Profession by a laudable perseverance in their studies, and by a Practice becoming the character of a gentleman; adding many useful precepts respecting their conduct towards their patients, charity towards all; and with reference to the opportunity they might have of gaining the confidence of the sick, and esteem of every one who by their vigilance and skill might be relieved from suffering, and restored to health.

"The Vice-President concluded the whole with Prayer and Thanksgiving."

The newspaper account concludes, "and the whole was honoured with the presence of a polite and learned assembly, who by their kind approbation, testified the satisfaction which the inhabitants of this place have in the improvement of useful knowledge in their native country."

The custom of conferring the degree of Bachelor of Medicine was maintained until 1789, when it was discontinued.

Carson⁵ quotes the following from a letter written by Dr. Rush to Dr. Morgan as early as 1768:

"I have read the laws you have established with regard to the conferring degrees in Physic, and have shown them to several gentlemen in this place [Edinburgh] who, upon the whole, approve of them. Some of them have thought that conferring Bachelor's Degrees in Physic would tend to depreciate their value, as few young men would ever have leisure enough after they began to practise, to return a second time to the College in order to write a Thesis or go through the other necessary forms, previous to being admitted Doctors of Physic. Upon this account they have proposed that no one should be admitted to the physical honors, until he had studied there two or three years, and afterwards published a Thesis. But you who are upon the spot can best judge of the propriety of the regulation."

Dr. Rush's view was found to be correct. But few of those who got the degree of B.M. ever returned for that of M.D.

In January, 1768, Dr. Adam Kuhn was appointed Professor of Materia Medica and Botany in the College. These subjects had formerly been taught by Dr. Morgan. His election is recorded by the trustees in the following terms:

"Dr. Adam Kuhn having made application to be appointed Professor of Botany and Materia Medica in this College, declaring that he would do the utmost in his power to merit the honor, and the Trustees having ample assurance of his abilities to fill that Professorship, for which he is likewise particularly recommended by the Medical Trustees and Professors belonging to the College itself, did therefore unanimously appoint him, the said Dr. Kuhn, Professor of Botany and Materia Medica in this College, agreeably to his request."

⁵ Loc. cit.

It would have been impossible for the trustees to have placed a more suitable man in the chair to which he was elected. He was born in 1743, first studied medicine with his father, and in 1761 went abroad and studied medicine at the University of Upsal in Sweden, where also he pursued the science of botany under the great Linnæus. The latter became very fond of him and considered him one of the ablest of his pupils. Subsequently Dr. Kuhn studied medicine in London, finally going to Edinburgh, from which University he received the degree of M.D. in 1767. He returned to America in 1768. In May of that year he lectured on botany. The course was announced as to be given again in the year 1769, but after that was dropped. Dr. Kuhn lectured for twenty-one years on *materia medica*.

In 1769 Dr. Benjamin Rush returned from Europe and was elected Professor of Chemistry. He was but twenty-four years old, but had already begun to make his mark. Born in 1745, he had graduated from Princeton in 1760, and then spent six years studying medicine with Dr. Redman. In 1766 he went to Edinburgh, and received from that University the degree of M.D. in 1768. Dr. Carson quotes the following extract from a letter written by Rush on January 20, 1768, when a student at Edinburgh, to Morgan, which shows that he was even then looking forward to the chance of filling the chair:

"I exult in the happy prospects, which now open upon you, of the success of the Medical Schools you have established in Philadelphia. The scheme you have published for conferring degrees in Physic has met with the approbation of Dr. Cullen himself, who interests himself warmly in everything that relates to your reputation or success in life; he thinks himself happy, he says, in educating those young men to whom so important a Medical College as that in Philadelphia will owe its foundation and future credit. I thank you

for the pains you have taken to secure me the Professorship of Chemistry. I think I am now master of the science, and could teach it with confidence and ease. I have attended Dr. Black for two years diligently, and have, I think, received from him a comprehensive and accurate view of the science, together with all his late improvements in chemistry, which are of so important a nature that no man, in my opinion, can understand or teach chemistry as a science without being acquainted with them. . . . As to the experiments you speak of there is scarcely one of them but what I have seen twice performed, either publicly or privately, by Dr. Black. . . . I would not, however, urge your interest too warmly in this affair; perhaps I may disappoint the expectations of the Trustees, and prevent a person better qualified from filling the chair. I should like to teach Chemistry as a Professor, because I think I could show its application to medicine and philosophy. . . . I should likewise be able more fully, from having a seat in the College, to co-operate with you in advancing the Medical Sciences generally."

In October, 1768, he must have been sure that he would be elected, as he wrote to Morgan:

"I am much obliged to you for continuing to read lectures on Chemistry. I hope to be in Philadelphia in May or June next, so that I shall relieve you from the task the ensuing winter. Is it necessary for me to deliver publicly an Inaugural Oration? Something must be said in favor of the advantages of Chemistry to Medicine, and its usefulness to medical philosophy, as the people of our country in general are strangers to the nature and objects of the sciences."

When he returned to this country he brought with him the following letter, dated May, 1769:

"GENTLEMEN: Dr. Rush having been recommended to me by Dr. Fothergill as a very expert Chymist, and the Doctor having further recommended to me to send a Chymical Apparatus to the College, as a Thing that will be of great use, particularly in the tryal of ores, I send you such as Dr. Fothergill thought necessary, under the care of Dr. Rush, which I desire your acceptance of. I recommend Dr. Rush to your notice, and humbly wishing success to the College, remain, with great regard

"Your very affectionate friend

"THOS. FENN.

"TO THE TRUSTEES OF THE COLLEGE OF PHILADELPHIA."

Dr. Rush applied to the Board of Trustees for the position in the following letter:

"GENTLEMEN:

"As the Professorship of Chemistry, which Dr. Morgan hath some time supplied, is vacant, I beg to offer myself as a Candidate for it. Should you think proper to honor me with the Chair, you may depend upon my doing anything that lies within my power to discharge the duties of a Professor, and to promote the reputation and interest of your College.

"I have the honor to be, with the greatest respect

"Your most obedient, humble servant,

"BENJ. RUSH.

"PHILADELPHIA, July 31, 1769."

At the meeting of the Board of Trustees on August 1, 1769, he was unanimously elected to the chair.

Carson justly draws attention to the youthfulness of the professors in the yet young Faculty of Medicine. Rush was but twenty-four, Kuhn twenty-eight, Shippen thirty-three, and Morgan thirty-four. Dr. Bond, who may be considered as the faculty's lecturer on clinical medicine, was only a little past the age of fifty.

The *Pennsylvania Gazette* for July 6, 1769, contains the following account of the second Commencement of the Medical Department:

"COMMENCEMENT OF THE COLLEGE OF PHILADELPHIA, JUNE 28, 1769.

"The Degree of Bachelor of Medicine was conferred on James Armstrong, Josias Carroll Hall, John Hodge, John Houston, Thomas Pratt, Alexander Skinner, Myndert Veeder, and John Winder.

"The Medical Exercises were the following:—

"An oration in honor of Medicine, by Mr. Hall.

"A Forensic Dispute, whether Medicine hath done most good or harm in the world, by Messrs. Alexander Skinner and John Hodge.

"An oration on the most probable method of obtaining a good old age, by Mr. John Winder.

"In the composition of these exercises the young gentlemen gave full proofs of learning, as well as a thorough acquaintance with their subjects and the History of Physic, and they were honoured

with the close attention and warm approbation of the audience. Mr. Skinner's part of the Forensic Dispute, in particular, seemed to afford singular entertainment, from the candid freedom which he took with his own Profession, and the very humorous manner in which he attempted to prove that Medicine had done more harm than good in the world; which Position of his was, however, very seriously and fully replied to by Mr. Hodge. To this succeeded a very solemn and interesting charge, in which the Provost addressed himself chiefly to the graduates in the arts, adding, with respect to the graduates in Physic, that he had prevailed on a gentleman of their own Profession whose precepts would receive Dignity from his years and experience, to lay before them what he thought requisite as well for the honour of the College, as for promoting their own future honour and usefulness in life. This part was accordingly performed by Dr. Thomas Bond, in a manner so truly feeling and affectionate that it could not fail to make a serious impression on those for whom it was designed."

The Commencement of 1771 was distinguished by the return of four of the graduates who had received the degree of M.B. in 1768 to get the degree of M.D. Dr. Carson quotes from the minutes of the Board of Trustees the regulations regarding the steps essential to the conferring of such a degree:

"Minutes of Board of Trustees, May 20, 1771, Agreed to the explanation made by the Faculty of the Clause for examining the Candidates for a Doctor's Degree in Physic, which is as follows:—

"That such Candidates be examined on their Thesis before the day of Commencement, and on that day, immediately before receiving their Degree, they be asked a few Questions in Latin on the subject of their Thesis, which they are to answer in the same language.

"It is the order of the Trustees that the Fee for the Degree of Doctor in Physic, be to the Provost one Guinea, and one Guinea to each of the Medical Professors, and that the Public Commencement be held on Friday, June 28th.

"It is ordered that all the Fees on the Degrees be paid or settled for before the conferring of Degrees."

The Commencement was held on the 28th of June, 1771:

"The Degree of Bachelor of Physic was conferred on Benjamin Alison, Jonathan Easton, John Kuhn, Frederick Kuhn, Bodo Otto, Robert Pottinger and William Smith.

"Messrs. Jonathan Elmer, of N. J., Jonathan Potts, of Pottsgrove, Pa., James Tilton, of Dover, and Nicholas Way, of Wilmington, then presented themselves, agreeably to the Rules of the College, to defend, in Latin, the Dissertations printed for the Degree of Doctor in Physic.

"Mr. Elmer's Piece, '*De Causis et Remediis sitis in Febribus*,' was impugned by Dr. Kuhn, Professor of Botany and Materia Medica.

"Mr. Potts's, '*De Febribus intermittentibus potissimum tertianis*,' was impugned by Dr. Morgan, Professor of the Theory and Practice of Physic.

"Mr. Tilton's, '*De Hydrope*,' was impugned by Dr. Shippen, Professor of Anatomy.

"Mr. Way's, '*De Variolarum Insitione*,' was impugned by Dr. Rush, Professor of Chemistry.

"Each of the candidates having judiciously answered the objections made to some parts of their Dissertations, the Provost conferred upon them the Degree of Doctor of Physic, with particular solemnity, as the highest mark of honour which they could receive in the Profession.

"Dr. Morgan, who was appointed to that part of the Business, entered into a particular account of those Branches of study which the Medical Gentlemen ought still to prosecute with unremitted Diligence, if they wished to be eminent in their Profession, laying down some useful rules for an honourable practice in the Discharge of it. He observed that the 'oath' which was prescribed by Hippocrates to his Disciples had been generally adopted in Universities and Schools of Physic on like occasions, and that laying aside the form of oaths, the College, which is of a free spirit, wished only to bind its Sons and Graduates by the ties of Honour and Gratitude, and that therefore he begged leave to impress upon those who had received the distinguished Degree of Doctor that as they were among the foremost sons of the Institution, and as the Birth Day of its Medical Honours had arisen upon them with auspicious lustre, they would, in their practice, consult the safety of their Patients, the good of the community, and the dignity of their Profession, so that the Seminary from which they derived their Titles in Physic, might never have cause to be ashamed of them."

In the winter of 1772-73 Dr. Morgan went to the West Indies to try and get subscriptions for the College

among the rich colonists there. He managed to turn over two thousand pounds to the College trustees.

The number of students seems to have pretty steadily increased until the Revolution came along and gave a temporary check to the progress of medical education in Philadelphia. Morgan, Shippen, and Rush all became eminent in the Continental army, Rush being also a member of Congress and one of the signers of the Declaration of Independence. Two of those who had received the degree of M.B. in 1768, and of M.D. in 1771, became prominent in connection with the Continental army,—namely, Dr. James Tilton and Dr. Jonathan Potts.

During the war lectures seem to have been occasionally given, but there was great trouble in the attempt to maintain any manner of systematic instruction. Some of the trustees were Tories, although most of them were Whigs. On November 27, 1779, the Legislature passed an act repealing the charter of the College of Philadelphia and conferring all the powers and privileges implied in it upon "The University of the State of Pennsylvania."

The trustees of the University, at a meeting held December 8, 1779, passed a resolution,—

"That Dr. Shippen, sen., Dr. Bond, and Dr. Hutchinson be a Committee to inquire into the state of the late Medical School, as it stood in the late College, and what is the establishment thereof in Foreign Universities, and to digest a plan, for the consideration of the Board, for establishing the school on the most respectable footing. That the said Committee do request the several Medical Professors in the mean time to proceed in their lectures as heretofore."

On May 11, 1780, the trustees resolved "that the former Medical Professors be requested to examine such candidates as shall apply to them."

In 1780 the degree of B.M. was conferred on William

W. Smith and Ebenezer Crosby, and that of M.D. on David Ramsay.

The trustees experienced the greatest difficulty in finding medical men willing to occupy professorships under them. There was much sore feeling on the part of the friends of the old College against the new University. Dr. George B. Wood, in his "History of the University of Pennsylvania," goes into the circumstances which led up to the overthrow of the College and the founding of the University, and shows that in their zeal to make the new institution as completely American as possible the Legislature did scant justice to the claims of the old. Dr. Shippen was the only professor in the College who at once accepted a professorship in the University. Dr. Hutchinson declined successively the chair of Practice and of Chemistry. Dr. Tilton declined the chair of *Materia Medica*. Dr. Bond, however, consented to combine a course of lectures on the theory and practice of medicine with his clinical lectures. Later, Dr. Rush, in 1781, lectured on medicine and on chemistry.

In 1782 the degree of M.B. was conferred on eight candidates.

In November, 1783, the professors of the College finally agreed to accept again their old chairs, and for some years things appear to have run comparatively smoothly.

The friends of the College, however, had been working continuously for the repeal of the bill which had abrogated its charter, and were finally successful, for on March 6, 1783, the repeal was passed, and the charter of the College once more became effective.

Benjamin Franklin was in the forefront of those who fought for the rights of the College. He had been in Europe at the time the bill constituting the University

had been passed. The founders of the University had taken the liberty of making him one of its trustees, but immediately on his return he had withdrawn his name and joined forces with his old colleagues of the College.

As soon as the bill restoring its rights was passed the trustees of the College proceeded to restore its former medical professors to their positions. Dr. William Shippen, Jr., became once more Professor of Anatomy, Dr. Adam Kuhn of Botany and *Materia Medica*, and Dr. Benjamin Rush of Chemistry. Dr. Morgan was re-elected to the professorship of the Theory and Practice of Medicine, but he was ill at the time, and died in October, 1789, without ever resuming its duties.

It is curious to note that Dr. Shippen was a professor in both the College and the University, in spite of the rivalry existing between the two institutions.

Upon the death of Dr. Morgan, in October, 1789, Dr. Rush was elected Professor of the Theory and Practice of Medicine in the College. In the same month Dr. Adam Kuhn resigned the professorship of Chemistry in the College to become Professor of the Practice of Medicine in the University.

Dr. Rush was succeeded as Professor of Chemistry in the College by Dr. Caspar Wistar, who was also Professor of the Institutes of Physics. Two other professorships were filled by the election of Dr. Samuel Griffitts to be Professor of *Materia Medica* and Pharmacy, and of Dr. Benjamin Smith Barton to be Professor of Natural History and Botany.

In December, 1789, Dr. James Hutchinson was elected Professor of Chemistry and *Materia Medica* in the University. Thus there were two rival medical institutions established in a field which was not more than sufficient

for one, and for some years this unfortunate condition prevailed.

In 1789 the College, as has been mentioned, resolved to abolish the custom of bestowing the degree of Bachelor of Medicine. The University, however, continued to bestow it.

On November 17 of that year the trustees of the College published in the *Pennsylvania Gazette* the following rules in regard to the conferring of medical degrees:

"1. No person shall be received as a Candidate for the degree of Doctor of Medicine until he has arrived at the age of twenty-one years, and has applied himself to the study of Medicine in the College for at least two years. Those Students, candidates who reside in the City of Philadelphia, or within five miles thereof, must have been the pupils of some respectable practitioner for the space of three years, and those who may come from the country and from any greater distance than five miles must have studied with some reputable physician there for at least two years.

"2. Every candidate shall have regularly attended the lectures of the following Professors, viz., of Anatomy and Surgery; of Chymistry and the Institutes of Medicine; of Materia Medica and Pharmacy; of the Theory and Practice of Medicine; the Botanical lectures of the Professor of Natural History and Botany; and a course of lectures on Natural and Experimental Philosophy.

"3. Each candidate shall signify his intention of graduating to the Dean of the Medical Faculty, at least two months before the time of graduation, after which he shall be examined privately by the Professors of the different branches of medicine.

"If remitted to his studies the Professors shall hold themselves bound not to divulge the same; but if he is judged to be properly qualified, a medical question and a case shall then be proposed to him, the answer and treatment of which he shall submit to the medical Professors. If these performances are approved, the Candidate shall then be admitted to a public examination before the Trustees, the Provost, Vice Provost, Professors and Students of the College; after which he shall offer to the inspection of each of the Medical Professors a Thesis, written in the Latin or English Language (at his own option) on a medical subject. This Thesis, approved of, is to be printed at the expense of the Candidate, and defended from such objections as may be made to it by the Medical

Professors, at a Commencement to be held for the purpose of conferring degrees, on the first Wednesday of June every year.

"Bachelors in Medicine who wish to be admitted to the Degree of Doctor in Medicine, shall publish and defend a Thesis agreeably to the rules above mentioned.

"The different Medical Lectures shall commence annually on the first Monday in November, the lectures in Natural and Experimental Philosophy about the same time, and the lectures on Botany on the first Wednesday in April.

"BENJAMIN FRANKLIN,

"President of the Board of Trustees.

"WILLIAM SMITH,

"Provost of the College and Secretary of the Board of Trustees."

In 1791 the two schools agreed that it was to the best interests of both of them to unite. They petitioned the Legislature for such union, and on September 30, 1791, an act was passed uniting the College of Philadelphia and the University of the State of Pennsylvania, under the title of "The University of Pennsylvania."

In his introductory lecture in November, 1791, Dr. Rush referred to this auspicious union as follows:

"I should do violence to my feelings should I proceed to the subjects of the ensuing course of lectures, without first congratulating you upon the union of the two Medical Schools of Philadelphia, under a Charter founded upon the most liberal concessions by the gentlemen who projected it, and upon the purest principles of patriotism in the Legislature of our State. By means of this event, the ancient harmony of the different professors of medicine will be restored, and their united efforts will be devoted, with accumulated force, towards the advancement of our Science."^a

All the professors of both the institutions retained positions in the new University. The professorships were held as follows: Dr. William Shippen was Professor of Anatomy, Surgery, and Midwifery, of which subjects Dr. Caspar Wistar was Adjunct Professor; Dr. Adam

^a Carson, History of the Medical Department of the University of Pennsylvania.

Kuhn was Professor of the Theory and Practice of Medicine; Dr. Benjamin Rush was Professor of the Institutes of Medicine and Clinical Medicine; Dr. James Hutchinson was Professor of Chemistry; Dr. Samuel P. Griffitts was Professor of Materia Medica and Pharmacy; Dr. Benjamin Smith Barton was Professor of Botany and Natural History.

The above-named gentlemen were all elected on January 23, 1792. On April 3 of the same year Dr. John Ewing was elected Professor of Natural and Experimental Philosophy.

In the new institution natural history and botany were made elective subjects. The degree of B.M. was dropped and that of M.D. alone conferred.

In 1793 Dr. James Hutchinson died of yellow fever, and on January 7, 1794, Dr. John Carson was elected Professor of Chemistry in his place. Dr. Carson died before he could assume his duties, and the chair was then offered to the famous Dr. Priestley, who declined it because of ill-health and a desire for plenty of time in which to devote himself to original research. The chair was finally filled by the appointment, on July 7, 1795, of Dr. James Woodhouse.

In 1796 Dr. Griffitts resigned the professorship of Materia Medica. He was succeeded by Dr. Benjamin Smith Barton, who, however, still retained his other professorship.

Dr. Adam Kuhn resigned as Professor of the Theory and Practice of Medicine in 1797. Dr. Rush performed Dr. Kuhn's duties until 1805, in which year the two chairs of the Theory and Practice of Medicine and of the Institutes and Clinical Medicine were combined and he was elected Professor.

Surgery, Anatomy, and Obstetrics remained as one



DR. PHILIP SYNG PHYSICK.

professorship until 1805, when Dr. Physick was elected Professor of Surgery.

Dr. Shippen remained as Professor of Anatomy and Midwifery until his death in 1808, when Dr. Wistar was elected to the chair. Anatomy and Obstetrics continued to be taught by one professor until 1810, in spite of Dr. Wistar's efforts to bring about a separation of the two subjects. On April 11, 1810, the Board of Trustees passed the following remarkable resolution:

"That the present establishment of a Professor of Anatomy and Midwifery be divided, and that hereafter there shall be a Professorship of Anatomy, and a Professorship of Midwifery, but that it shall not be necessary in order to obtain the Degree of Doctor of Medicine, that the student shall attend the Professor of Midwifery."

In June, 1810, Dr. Thomas Chalkley James was elected Professor of Midwifery. In 1813 attendance upon the lectures on obstetrics was finally made compulsory by the following resolution of the Board of Trustees, October 11, 1813:

"*Resolved*, That hereafter the Professor of Midwifery shall be a member of the Medical Faculty, and that no person shall be admitted as a Candidate for the Degree of Doctor of Medicine in this University, unless he shall have regularly attended the lectures of said Professor for two years."

Dr. Woodhouse continued as Professor of Chemistry until his death in 1809, when he was succeeded by Dr. John Redman Coxe.

The Medical School of King's College, New York.⁷

The College of Physicians and Surgeons of the University of New York is the direct descendant of the

⁷ My information is chiefly derived from Hosack's "Historical Sketch of the Origin, Progress and Present State of the College of Physicians and Surgeons of the University of New York," *American Medical and Philosophical Register*, vol. iv., 1814.

Medical School of King's College in the city of New York. This School was organized in the year 1768 as an adjunct to the College. Its first faculty consisted of Dr. Samuel Clossy, Professor of Anatomy; Dr. John Jones, Professor of Surgery; Dr. Peter Middleton, Professor of Physiology and Pathology; Dr. James Smith, Professor of Chemistry and Materia Medica; Dr. John V. B. Tennent, Professor of Midwifery; and Dr. Samuel Bard, Professor of the Theory and Practice of Physic. This group of men was representative of the best element of the profession in New York. Dr. Samuel Clossy was a native of Ireland, who before emigrating to this country had published a book entitled "Observations on some of the Diseases of the Human Body, chiefly taken from the Dissections of Morbid Bodies." His political opinions rendered him obnoxious to the patriots, and he returned to his native land after a few years' sojourn in this country. Dr. John Jones was the grandson of Edward Jones, a prominent Welsh physician who had come over with Penn to Pennsylvania. His father, Evan Jones, had attained prominence in Pennsylvania as a physician, but had removed to New York before the birth of his son John. Dr. John Jones studied under Dr. Thomas Cadwalader, of Pennsylvania, subsequently completing his medical studies in Europe. He was a famous surgeon in his day, and in 1775 published one of the earliest American treatises on surgery, entitled "Plain Remarks upon Wounds and Fractures." In 1780 he removed to Philadelphia, where, in the same year, he was elected surgeon to the Pennsylvania Hospital. Dr. Peter Middleton was a Scotchman. In 1750 he and Dr. Bard dissected the body and injected the blood-vessels, probably the first time such a thing was done in America. He wrote a letter "On Croup" to Dr. Richard Bayley, which



DR. SAMUEL BARD.

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was published in the ninth volume of the *Medical Repository*. In 1769 he published his discourse on the history of medicine, delivered at the opening of the New York Medical School. Dr. Samuel Bard was the son of the eminent Dr. John Bard, and had received his degree of M.D. at the University of Edinburgh. Even when a student at the latter he had written to his father about the feasibility of establishing a medical school in his native country. Dr. James Smith had graduated in medicine at Leyden. Thacher says, "He is admitted by all to have been eminently learned, though too theoretical and fanciful, both as a practitioner of the healing art, and in his course of public instruction." Lastly, Dr. John V. B. Tennent was a man of great attainments. He had studied medicine in Europe and was elected a member of the Royal Society while he was in London. He died at an early age of yellow fever in the West Indies.

In 1769 the degree of Bachelor of Medicine was conferred upon Robert Tucker and Samuel Kissam, and in 1770 Samuel Kissam received his degree of M.D., his "Inaugural Dissertation on the Anthelmintic Uses of the *Phaseolus Zuratensis Siliqua hirsuta*, or Cow-Itch," being preserved in the library of the New York Historical Society. The Revolution, however, interrupted the operations of the College, and the original faculty never again gave instruction as its professors. In 1784 an unsuccessful attempt was made to reorganize the medical school. After the termination of the war King's College was renamed Columbia, and in 1792 the Board of Trustees of the institution determined to revive the medical school. Dr. Samuel Bard was placed at the head of the faculty, but the laudable efforts of the trustees were frustrated and the scheme proved a failure. Between 1792 and 1811 but thirty-four students received degrees in medicine

from the school. In 1807 the Regents of the University of New York determined to establish a College of Physicians and Surgeons. An act of Legislature authorizing them to create such a college had been passed in 1791, but the time had heretofore not seemed ripe for putting it into effect, as it was hoped the medical school of Columbia College would have fulfilled the purpose. On the 12th of March, 1807, however, they issued a charter for the new institution. On the 5th of May, 1807, the following officers were elected:

Dr. Nicholas Romaine, President.

Dr. Samuel L. Mitchell, Vice-President.

Dr. Archibald Bruce, Registrar.

Dr. Abraham Brower, Treasurer.

Censors.

Edward Miller, M.D., David Hosack, M.D., Alexander Shelden, William Livingston, William James McNeven, M.D., Henry Van Sohnigen, M.D., William Wheeler, J. D. Gillespie, J. E. R. Birch, James G. Graham, Benjamin De Witt, M.D., Felix Pascalis, and Alexander Hosack, M.D.

The following physicians were made professors:

Dr. Edward Miller, Professor of the Practice of Physic; Dr. Samuel L. Mitchell, Professor of Chemistry; Dr. David Hosack, Professor of Botany and Materia Medica; Dr. Benjamin De Witt, Professor of the Institutes of Medicine. A number of lecturers were appointed,—namely, Dr. Nicholas Romaine and Dr. John Augustine Smith, Lecturers on Anatomy; Dr. Benjamin De Witt, Lecturer on Chemistry; Dr. David Hosack, Lecturer on Surgery and Midwifery; and Dr. Edward Miller, Lecturer on Clinical Medicine.

The minute details of business relating to the College

were confided in a *Senatus Academicus*, consisting of the President, Vice-President, Professors, Lecturers, Registrar, and Treasurer.

A building for the College was procured in Robinson Street, and immediate steps were taken for the formation of an anatomical museum, a chemical laboratory, and a mineralogical collection. In 1801 Dr. David Hosack had purchased a tract of land, of about twenty acres in extent, on the road between Bloomingdale and Kingsbridge, which he had laid out as a botanic garden, and this was committed to the care of the trustees of the College for the benefit of the students in their botanical studies. In a "Sketch of the Elgin Botanical Garden in the Vicinity of New York," published in the *American Medical and Philosophical Register* for July, 1811, there is a description of this garden. It states,—

"As a primary object of attention in this establishment was to collect and cultivate the native plants of this country, especially such as possess medicinal properties, or are otherwise useful; among others, such gardeners as were practically acquainted with our indigenous productions were employed to procure them, and by the distinguished liberality of several scientific gentlemen in this country, there were in cultivation at the commencement of 1805 nearly fifteen hundred species of American plants, besides a considerable number of rare and valuable exotics."

In the year 1806 very important additions were made to the collection of plants from various parts of Europe as well as from the East and West Indies. A second building for their preservation was also erected, and the foundation of a third laid, which was completed in the following year. In the autumn of the same year, 1806, a catalogue of the plants, both native and exotic, which had been already collected, and which amounted to nearly two thousand, was published.

On the 7th of November, 1807, the lecture courses commenced and were regularly continued. An arrangement was entered into with the Board of Examiners of the New York Hospital which placed the clinical material of the latter institution at the disposal of the Professor of the Practice of Physic for a course of clinical lectures, and Dr. McNeven, who was one of the physicians to the New York Almshouse, was able to give his students the benefit of the clinical matter to be found in it. In 1808 the Legislature gave a liberal appropriation of twenty thousand dollars to the College. During 1807 there were fifty-three students in attendance, which number increased in 1808 to seventy-two.

The trustees availed themselves of the Legislature's gift to enable them to move into more commodious buildings on Pearl Street. In the interval between the session of 1807 and that of 1808, Dr. Smith was promoted from Lecturer to Professor of Anatomy and Surgery, Dr. Mitchell was made Professor of Natural History, Dr. De Witt, Professor of Chemistry, Dr. McNeven, Professor of Obstetrics and the Diseases of Women and Children, and Dr. Romaine, Professor of the Institutes of Medicine. The session of 1808 lasted for four months, and the lectures were well attended by the students, and the different courses elicited unanimous approbation.

In 1809 there were seventy-three students, and many important improvements were made in the equipment and curriculum of the College. The various anatomical and natural history museums received many additions. Dr. A. Bruce was elected Professor of Materia Medica and Mineralogy. The good work of the institution now, however, received a serious check. Misunderstandings arose between Dr. Romaine and some of the professors, as the result of which several of the professors refused to lec-

ture, and the courses became so imperfect and curtailed that the students fell off to only about one-third of their former number. The Regents of the University of New York took the matter up, and appointed a committee, consisting of Chief Justice Kent, Judge Spencer, and Judge Smith, to investigate the cause of the trouble.

They reported as follows:

"At a meeting of the Regents of the University, held pursuant to adjournment, in the Senate Chamber, on the first of April 1811.

"The committee relative to the state of the College of Physicians and Surgeons in the city of New York, report, that unfortunate misunderstandings have taken place between several professors of the College, which have already materially impeded its operations, and unless something effectual be done by the regents, it will become degraded in the estimation of the public, and its usefulness will be inevitably destroyed. The committee have forborne to trace and bring to light the conduct of individuals, because in their opinion it would be both useless and invidious.

"Propositions have been made to the committee to re-model the institution, with a view of rendering its operation more simple and introducing into it several of the Professors of the Medical School in Columbia College, and other eminent and distinguished individuals; this proposition has been viewed by the committee in the most favorable light, as it may extinguish the feuds existing among the present Professors of the College of Physicians and Surgeons, and as it will, in all probability, be the means of uniting the two schools. The latter appears an object of the first importance, in as much as it will assemble, in one institution, a splendid collection of medical and surgical talents, and as it cannot fail to merit and receive the patronage and encouragement of the legislature.

"It is not necessary for the committee to attempt to display the important advantages to the state which a well organized Medical School in the city of New York must afford, its hospital and the subjects furnished by the state prison, without the violation of law, present a field for the acquisition of medical and surgical knowledge unrivalled in the United States, and it is only requisite to establish an institution, under the fostering care of the legislature, in which shall be united the best talents, and to secure these advantages to the state.

"Under these impressions, the committee beg leave to report an alteration of the charter of the College of Physicians and Surgeons,

and to propose a new list of officers and professors, which alteration is as follows, to wit:

"By the Regents of the University of the State of New York.

"Whereas we have reserved to ourselves the right to alter and modify our ordinances for establishing a College of Physicians and Surgeons in New York; therefore,

"Be it ordained, That all the corporate rights, privileges, powers, and immunities granted by us to the said College of Physicians and Surgeons, to the Trustees or Members thereof, shall hereafter be exclusively vested in, and exercised by the Trustees of the said College of Physicians and Surgeons, to be appointed from time to time by us or our successors. And the said Trustees shall do and perform all matters and things which the said College of Physicians and Surgeons, the Trustees or Members thereof, and the Senatus Academicus and Censors thereof, are authorized and required to do and perform.

"And be it further ordained, That the President, Vice-President, Professors, and Treasurer of the said College, for the time being, and such other persons as we, or our successors, may hereafter appoint, shall be the Trustees of the said College, provided the whole number of the said Trustees shall not, at any time, be more than twenty-five.

"And be it further ordained, that the President or Vice-President, or any three of the Trustees, shall have power, at any time, to call a meeting of the said Trustees, by giving at least three days previous notice of the time and place of holding said meeting. And five of the said Trustees (of which the President, or in his absence, the Vice-President, shall be one) shall be a quorum for the transaction of business.

"And be it further ordained, That the Trustees and Members of the said College, who are not constituted Trustees by this supplementary charter, shall be hereafter fellows or members thereof, and that the Trustees shall have power to elect fellows as members of the said College, who shall at all times have the privilege of attending all the public lectures and other courses of instruction, delivered by the Professors in the said College; and who shall also have the privilege of visiting and inspecting the Anatomical Museum, the Botanical Garden, the Cabinets of Mineralogy and Natural History, and the Library of the said College, under such regulations as the Trustees shall prescribe for that purpose.

"And be it further ordained, That reserving to ourselves and our successors, Regents of the University, the power of making such other grants and ordinances as may be necessary or useful for the said College, we finally order, that this ordinance shall form part of

the charter of the said College of Physicians and Surgeons in the city of New York. And we do hereby revoke and annul such parts of our previous grants and ordinances as are contrary to, or inconsistent with, the present ordinance."

After this reorganization, on April 1, 1811, the following faculty was elected:

Dr. Samuel Bard, President.

Dr. Benjamin De Witt, Vice-President.

Dr. John Augustine Smith, Professor of Anatomy, Surgery, and Physiology.

Dr. David Hosack, Professor of the Theory and Practice of Physic and Clinical Medicine.

Dr. William James McNeven, Professor of Chemistry.

Dr. Samuel L. Mitchell, Professor of Natural History.

John D. Jaques, Treasurer.

Dr. John W. Francis, Registrar.

The Legislature made the trustees an annual grant of five hundred dollars. The first Commencement under the new *régime* was held on the 15th of May, 1811, when the degree of M.D. was bestowed on eight graduates. Soon after this the wished-for union of the College of Physicians and Surgeons with Columbia College was consummated, and formally announced in the following circular:

"The union of the College of Physicians and Surgeons with the Faculty of Physic of Columbia College, so long desired by the friends of science, has at length most happily taken place. In April, 1811, the honorable the Regents of the university expressly endeavoured to effect this important object; fully impressed, as they professed themselves to be, 'with the advantages to the state, which a well organized medical school in New York must afford.' For this purpose the Regents new-modelled the school of medicine at that time, with a view of introducing into it the professors of the medical school of Columbia College, and other eminent and distinguished individuals; that thus united in one institution, the medical talents of both seminaries might be a greater benefit to the public, and

still better entitled to the patronage and encouragement of the legislature.

"The following arrangement, therefore, has been concluded, and will be carried into operation at the ensuing session of the College of Physicians and Surgeons, which will commence on the first Monday of November next, at their new and spacious buildings, recently completed in Barclay street.

"Anatomy, Physiology, and Surgery, by Dr. Wright Post, and Dr. John Augustine Smith.

Clinical Surgery at the New York Hospital, by Dr. Post.

Clinical Practice of Medicine, at do. by Dr. William Hamersley.

Obstetrics and Diseases of Women and Children, with practical illustrations at the Lying-in Hospital, by Dr. John C. Osborn.

Chemistry and Pharmacy, by Dr. William J. McNeven.

Medical Jurisprudence, by Dr. James S. Stringham.

The Principles and Practice of Surgery, by Dr. Valentine Mott.

Materia Medica, by Dr. John W. Francis.

Natural History, including Botany and Mineralogy, by Dr. Samuel L. Mitchell.

Natural and Experimental Philosophy, by the Vice-President of the College, Dr. Benjamin De Witt.

"The Lectures on Anatomy, the Principles and Practice of Surgery, the Theory and Practice of Physic, and on Chemistry, will be delivered daily, and the other courses of instruction three times in each week throughout the session, which will continue from the first Monday of November to the first Monday in March.

"Although the most liberal and extensive system of medical and philosophical instruction has thus been provided at this institution, the expense of education to the candidate for medical honors is not increased beyond that of any other college in the union; as none of the courses are made indispensably necessary for graduation, and the student is at liberty to attend any course or courses he may think proper; the professors insisting upon the attainments of the candidate, and not upon the number of courses; nor the number of years he may have attended at the University.

"By order

"SAMUEL BARD, M.D., President.

JOHN W. FRANCIS, M.D., Registrar."

The subsequent successful career of the institution thus founded is well known, and has amply justified the wisdom and foresight of its founders.

The Medical School of Harvard University.

Harvard College, the oldest of American institutions of learning, was founded in 1638 as a college for the education of youth in arts, letters, and puritanical theology, but no effort was made towards the founding of a medical school until many years later. There seems to have been, however, from an early date some vague idea that such establishment would be of advantage to the institution.

On the night of January 24, 1764, the library building of Harvard College was destroyed by fire. At the time smallpox was epidemic in Boston, and consequently the General Court was holding its sittings in the building, which had been lent to it by the College authorities.

Green⁸ quotes from a contemporary account of the fire, published in *The Boston Post-Boy & Advertiser* for January 30, 1764, the following item among the losses :

"A collection of the most approved medical Authors, chiefly presented by Mr. James, of the island of Jamaica; to which Dr. Mead and other Gentlemen had made very considerable additions: Also anatomical cutts and two complete skeletons of different sexes. This Collection would have been very serviceable to a Professor of Physic and Anatomy, when the revenues of the College should have been sufficient to subsist a gentleman in this character."

Dr. Ezekiel Hersey was a distinguished practitioner of Hingham, Massachusetts. He graduated from Harvard in 1728, and then studied medicine under the notorious Dr. Lawrence Dalhonde, of Boston. Notwithstanding the latter's violent opposition to inoculation, his pupil had the courage to enter the first class formed for the purpose of having that operation performed on them in

⁸ History of Medicine in Massachusetts.

Boston. At his death in 1770 he bequeathed one thousand pounds to Harvard, to be used for the founding of a Professorship of Anatomy and Surgery, which was supplemented by a like sum at the death of his widow.

Dr. Ezekiel Hersey's brother, Dr. Abner Hersey, a very eccentric doctor but having a large practice in Barnstable, Massachusetts, at his death in 1787 left five hundred pounds to be added to the fund left by his brother and his sister-in-law.

Dr. John Cumming, who during his life enjoyed a large practice in Concord, Massachusetts, some years before his death received the honorary degree of Master of Arts from Harvard, and at his death in 1788, no doubt in gratitude for this favor, he left the University five hundred pounds towards the endowment of a medical professorship. William Ewings, Esq., a well-known citizen of Boston, left, according to Thacher,⁹ one thousand pounds for the endowment of an additional professorship.

All these funds were consequently available at the time when it was found feasible to open a medical department of the University.

The Hon. Josiah Bartlett¹⁰ mentions the fact that in 1771 a number of undergraduate students at Harvard who were interested in anatomy formed a society called "The Anatomical Society," which held private meetings for the discussion of medical questions, and possessed the proud distinction of owning a skeleton.

In 1780 a Continental army hospital was established

⁹ American Medical Biography.

¹⁰ Historical Sketch of the Progress of Medical Science in the Commonwealth of Massachusetts (1810), Massachusetts Historical Society's Collections, second series, vol. i. p. 105.

in Boston, to which Dr. John Warren was surgeon, and he conceived the idea of rendering the clinical material useful, and also of combining with this the teaching of anatomy. He gave a series of lectures on anatomy, and repeated them in the following year, in which they were attended by such Harvard students as were contemplating the study of medicine. These lectures attracted so much attention and so favorably impressed those that heard them that the Harvard authorities invited him to lecture at Cambridge, and to aid them in the establishment of a medical school.

Dr. John Warren was a younger brother of the so greatly lamented Dr. Joseph Warren, who had died for his country at Bunker Hill. He had served as an army surgeon throughout the war, and after its close had attained much eminence in Boston. He was very active in affairs of state as well as in medicine, and no man could have been found better suited to perform the work that Harvard called on him to do. He was possessed of such indomitable will-power and energy that it is related of him that when he was not expected to recover from a fever with which he was sick in 1783, Dr. Joseph Gardiner said, "that young man is so determined to recover, that he will succeed in spite of his disease." It was no easy task for a busy doctor to get through his long rounds in those days of imperfect locomotion. Thacher¹¹ tells us how, "in the fullness of professional business he [Warren] daily passed over Charlestown ferry to Cambridge, there not being a bridge at that time; and sometimes, when impeded by ice, was compelled to take the route through Roxbury and Brookline to Cambridge, and to return on the same morning, after-

¹¹ American Medical Biography, p. 261.

wards himself performing the dissections and giving a lecture sometimes three hours long."

The plan which Dr. Warren drew up was approved by those in charge of the matter, and in 1783 the Harvard Medical School began its long and honorable career. Dr. Warren was appointed Professor of Anatomy and Surgery. Dr. Aaron Dexter was appointed Professor of Chemistry and Materia Medica, and Dr. Benjamin Waterhouse, Professor of the Theory and Practice of Medicine.

Of Dr. Dexter not much has descended to us. He seems to have been one of those men who do good, honest, hard work, and dying leave no very permanent memorials of their careers. Dr. Oliver Wendell Holmes¹² has repeated for our benefit an anecdote which he had heard from one of the professor's ex-students:

" 'This experiment, gentlemen,' he is represented as saying, 'is one of remarkable brilliancy. As I touch the powder you see before me with a drop of this fluid, it bursts into a sudden and brilliant flame,' which it most emphatically does *not* do as he makes the contact. 'Gentlemen,' he says, with a serene smile, 'the experiment has failed; but the principle, gentlemen,—the principle, remains firm as the everlasting hills.' "

Dr. Benjamin Waterhouse was a very distinguished man in Boston medical circles. He was the first physician to practise vaccination in this country. In July, 1800, he procured vaccine virus from London and vaccinated his own children. He was the only one of the three professors who had received his medical education in Europe. Possibly on this account he possessed a somewhat pedantic manner. Dr. Holmes gives us the following amusing account of him:

¹² Address at the One Hundredth Anniversary of the Foundation of the Medical School of Harvard University.

"I remember him well, and carry the scar of the vaccination he performed on me. His powdered hair and queue, his gold-headed cane, his magisterial air and diction, were familiar to me from my boyhood. Dr. Waterhouse had his degree from Leyden, where he wrote and defended a thesis, *De Sympathia Portium Corporis Humani, ejusque in explicandis et curandis morbis necessaria consideratione*. He had some learning, which he was disposed to make the most of, as perhaps we all are if we have it, and laid himself open to the playful sallies of the students of his time, one of whom announced a course of Lectures on Ondenology, which was supposed to be a travesty of some of his prelections."

The lectures of the professors were attended by some twenty students at first, "and also by those members of the Senior Class of the University who obtained the consent of their parents." The lectures were generally two or three hours long. They were given at Cambridge, in the College buildings, until December, 1810, when the Medical School was transferred to Boston. One subject was generally all the anatomical material which could be procured in a year. Dr. Holmes says, in speaking of the text-books in use at that time,—

"Dr. Waterhouse would naturally refer his students to the learned Gaubrus, the voluminous Van Swieten, the illustrious Boerhaave. The excellent Dr. Fothergill was his uncle; the immortal Jenner was his second creator; and their names, with that of Dr. Lettsom, were often on his lips. Sydenham, Pringle, and Cullen he speaks of as being in the hands of all his students, and his references show a considerable extent of reading. The text-books in Anatomy were probably Cheselden and Monro, perhaps Winslow, and for those who could read French, Sabatier. The Professor himself had the magnificent illustrated works of Albinus and of Haller, the plates of Cowper (stolen from Bidloo) and others. The student may have seen from time to time, if he did not own, the figures of Eustachius and of Haller. Haller's 'First Lines of Physiology' were doubtless in the hands of most students. The works of Pott, of Sharp, and, most of all, of John Hunter, were taking the place of Heister and the other earlier authorities.

"Smellie was probably enough the favorite in his department. What chemical text-books Dr. Dexter put into the hands of his students in 1783 I will not venture to conjecture."

The degree of Doctor of Medicine was conferred in 1788 on John Fleet. According to Thacher, John Holmes Hall also received his degree of M.D. in this year. In 1789 there were two graduates, Peter de Sales Laterriere and William Pearson. In 1790 but one degree was conferred, but its recipient was destined to reflect great glory on his alma mater, for he was no less than the eminent Nathan Smith.

Medical Department of Dartmouth College.

In 1798 the authorities of Dartmouth College determined to establish a medical school in connection with it. Dr. Nathan Smith was responsible most largely for its founding and was for many years its only professor, and "For twelve years gave lectures on the different branches of medicine, except two courses, in which he was assisted in the department of chemistry."

CHAPTER VI.

THE MEDICAL PROFESSION IN THE WAR FOR INDEPENDENCE.¹

IN the colonial period of our history in every community there were three men who stood forth pre-eminently as representing the learning and intellect of its inhabitants. They were the clergyman, the lawyer, and the physician. It is especially noteworthy that in the War for Independence the representative men of the three professions are found to have been, with but few prominent exceptions, on the side of the colonies.

In gathering the facts together concerning the physicians of that stormy period and the medical history of the war, I have endeavored to present, as briefly as possible, some slight sketches of the lives of those who rendered themselves conspicuous in the struggle, together with the history of the organization and management of the hospital service of the Revolutionary army. The task has been a difficult one, as the materials for it are scanty, but I feel confident that it is a field of history as inviting as it is difficult, and fully worth all the effort that can be given to it. Not only did the physicians of that time furnish medical aid to the patriot cause, but many of them became distinguished by their civil or military services.

¹The substance of this chapter was published in the *Charlotte Medical Journal* in 1899, and I am indebted to its editors for permission to republish it.

Before proceeding to the discussion of more strictly medical matters let us pause and review the services rendered by physicians to their country in matters apart from their strictly professional duties.

Among the signers of the Declaration of Independence we find the following physicians: Joshua Bartlett and Matthew Thornton, of New Hampshire; Oliver Wolcott, of Connecticut; Benjamin Rush, of Pennsylvania; and Lyman Hall, of Georgia.

The first overt acts of war occurred in Massachusetts, and the rôle played by members of the profession in that colony in the events leading up to the battles of Concord and Lexington, during those engagements, and subsequent to them, is memorable.

The following physicians were among the members of the Provincial Congress of Massachusetts in 1774 and 1775,—namely, Joseph Batchelder, of Grafton, Worcester County; William Bayliss, of Dighton, Bristol County; Chauncey Brewer, of West Springfield, Hampshire County; Alexander Campbell, of Oxford, Worcester County; Benjamin Church, of Boston; David Cobb, of Taunton, Bristol County; William Dunsmore, of Lancaster, Worcester County; John Corbet, of Bellingham, Suffolk County; Isaac Foster, of Charlestown, Middlesex County; Ephraim Guiteau, of New Marlborough, Berkshire County; Jeremiah Hall, of Pembroke, Plymouth County; James Hawse, of Westborough, Worcester County; Samuel Holten, of Danvers, Essex County; William Jamieson, of Meriden, Worcester County; David Jones, of Abington, Plymouth County; Morse, of Worthington, Hampshire County; Perkins, of Bridgewater, Plymouth County; Pyncheon, of Springfield, Hampshire County; [unclear], of Wells, York County; John Taylor,

of Summerburg, Worcester County; Joseph Warren, of Boston; William Whitney, of the towns of Egmont and Alfred in Berkshire County.

Dr. Joseph Warren was the most prominent and best beloved of the early martyrs in the conflict. He was born at Roxbury in 1741, graduated from Harvard College in 1759, and at once began his medical studies under Dr. James Lloyd. He attained a very extensive practice, not only because of his professional skill, but also by means of a large degree of what we would now call personal magnetism. He was an orator of no mean ability, and was twice chosen orator of the day on the 5th of March, on which date the anniversary of the Boston Massacre was celebrated. It was to his vigilance that the patriots were indebted for their knowledge that on April 19, 1775, the British would attempt to capture the military stores which had been accumulated at Concord. It was he who despatched Paul Revere and other messengers to arouse the minute-men, and when the fight occurred at Lexington, he shouldered a musket and was in the thick of it. On June 14, 1775, the Provincial Congress of Massachusetts appointed him a major-general of that colony's troops, at a time when he already held the office of president of that Congress. He felt that his duties called him to the field, and on the 15th of June hastened to join the Americans in their fight on Bunker Hill. He declined to avail himself of his commission to command troops, but voluntarily placed himself under the command of Colonel Prescott, as he modestly said, to learn the art of war from a more experienced soldier. He was killed towards the end of the day as he was leaving the breastworks after the retreat of almost all of the Americans from them. His loss was long mourned by his compatriots as irreparable.

Dr. John Brooks was born in Medford, Massachusetts, in 1752. After a common-school education he was apprenticed to Dr. Simon Tufts for seven years. As a fellow-pupil he had the famous Count Rumford. It is related of Brooks that while he was serving his apprenticeship his chief amusement was to form the boys of the village into military companies and drill them, thus early manifesting an interest in that science in which he later became such an expert. At the expiration of his apprenticeship he established himself in Reading, Massachusetts, but the stir of war was in the air. The town organized a militia company and the young doctor was given its command. When the news of the march of the British on Concord reached them they hastened to the scene of action, and arrived in time to take a hand in the fighting. Brooks received a commission as major in the Continental army. In 1777 he had attained the rank of colonel, and as such partook in the campaign which resulted in the surrender of Burgoyne. He was adjutant-general at the battle of Monmouth. After the war he resumed the practice of medicine, settling in Medford. But he continued to take an active part in public affairs, and in 1816 he was elected governor of Massachusetts. He died on the 1st of March, 1825, at the age of seventy-three. It is curious to note how, even when most active in political affairs, he yet maintained his eminence as a physician. In 1808 he delivered before the Massachusetts Medical Society the annual address, the subject being pneumonia.

Dr. William Eustis attained great eminence in civil life. He was born in Boston in 1753, graduated from Harvard College in 1774, and began the study of medicine under Dr. Joseph Warren. He was appointed to the position of regimental surgeon first, and later to that

of hospital surgeon, in the Continental army. It was Dr. Eustis who attended Mrs. Arnold in the hysterical attack from which she suffered on receipt of the information that her husband had fled to the British lines. At the close of the war he settled in practice at Boston, but soon drifted into political life. In 1787 he was elected a member of the General Court of Massachusetts, in 1800 he was elected to Congress. In 1808 President Madison appointed him Secretary of War. In 1815 he was minister to Holland. In 1821 he was once more elected to Congress, and shortly afterwards he succeeded another physician, Dr. Brooks, as governor of Massachusetts. He died in 1825 in his seventy-second year.

Yet another Massachusetts physician who became prominent in political affairs was Nathaniel Freeman. He was born in 1741, and studied medicine under Dr. Cobb. He settled in Sandwich, Massachusetts, and while attending to the cares of a large practice found time to read law. In 1773 he became chairman of the Committee of Correspondence and Safety of Sandwich. He was elected a member of the House of Representatives of Massachusetts in 1775, and appointed colonel of a militia regiment. In 1776 he was made judge of the Court of Common Pleas, and thenceforth until 1789 served in many public capacities. In 1789 he determined to again resume the practice of medicine, and soon acquired an extensive practice. In 1804 he retired from active professional work, but occasionally saw patients down to the year of his death. He died on September 20, 1827.

Dr. Josiah Bartlett was born in Amesbury, Massachusetts, in 1729, but, after studying medicine, he removed, in 1750, to Kingston, New Hampshire, where he remained in the practice of his profession until the war for Independence. Before the latter event he had been

colonel of a militia regiment, and in 1775 he was appointed by the Provincial Congress to the same position in one of their regiments. He was a delegate to the Continental Congress of 1776, and in that capacity was one of the signers of the Declaration of Independence. In 1779 he was appointed a justice of the Superior Court, and in 1789 chief justice. In 1790 he was chosen president of the State of New Hampshire, and in 1793 became its first governor. He died on May 19, 1795.

Another New Hampshire physician of prominence in civil life was Dr. Matthew Thornton. He was born in Ireland in 1714, came to Connecticut with his father, receiving in that State his school and medical education. He settled in practice at Londonderry, New Hampshire, where he attained much professional repute and was appointed a justice of the peace and colonel of militia. In 1775 he was elected president of the Provincial Congress of New Hampshire. He was elected to the Continental Congress and was one of the signers of the Declaration of Independence. In 1776 he was appointed chief justice of the Court of Common Pleas, and later judge of the Superior Court of New Hampshire. He was elected to the General Court and State Legislature of New Hampshire. He died June 24, 1803, aged eighty-nine years.

Dr. Jonathan Arnold, of Rhode Island, was a member of the Assembly of that State and of the Continental Congress. He represented Rhode Island in the United States Senate from 1793 to 1797.

Dr. Oliver Wolcott, of Connecticut, became one of the most eminent men of his time. He was a member of the Continental Congress for three years and one of the signers of the Declaration of Independence. In 1780 he was appointed a major-general in the Continental army. After the war he became governor of the State.

Dr. John Dickinson, of Connecticut, was a member of the State Legislature, and after the war judge of the District Court.

In Pennsylvania most of the medical men seem to have held fast to their professional line of work, but there were some notable exceptions, who either combined other employment with their medical labors, or gave up the latter to devote themselves to civil or military matters.

Among the latter we may place Dr. William Irvine (his name was frequently written Irwine), who at the commencement of the war had a large practice in the town of Carlisle. He was a member of the State Convention in 1774, and on June 10, 1776, was commissioned a colonel in the Continental army. He later became a brigadier-general. He was much distinguished for his personal bravery and as an able disciplinarian.

Dr. Benjamin Rush, whose career is noticed elsewhere, was a member of the Continental Congress and a signer of the Declaration of Independence, but in the subsequent events he placed himself where his talents would seem to have proved themselves most useful,—in the hospital department of the army.

Dr. William Shippen, Sr., of Pennsylvania, was a member of the Provincial Congress of 1778, but as he was even then sixty-six years old, he did not subsequently take any very prominent part in public affairs. His son William's services to the patriot cause were sufficient, however, to make it perfectly proper for the old gentleman to rest on his laurels.

New Jersey furnished many physicians to the cause, but only one had a noteworthy career in civil life. This was Dr. John Beattie, who was a native of Bucks County, Pennsylvania, but received his education and spent the greater part of his mature life in New Jersey. He gradu-

ated from Princeton in 1769 and studied medicine under Dr. Benjamin Rush. He entered the army in the first days of the war, and in September, 1776, was appointed a lieutenant-colonel in the Pennsylvania Line. He was shortly after made prisoner by the English, and was in captivity for several years. On attaining his liberty he was, in 1779, made commissary-general of prisoners. After the war he settled in Princeton, New Jersey, to practise medicine. He was soon, however, called into public life as a member of the State Legislature and of the Constitutional Convention. In 1793 he was elected to Congress. In 1795 he was chosen secretary of the State of New Jersey. He died on April 30, 1826, aged seventy-seven years.

Virginia presents a number of physicians occupying public station. Among these we would give first place to the gallant Hugh Mercer, one of Washington's most intimate friends. He was a native of Scotland, who had served as an assistant surgeon in the army of the unfortunate Prince Charles Edward at the battle of Culloden in 1745. After the disastrous defeat of the prince's army Dr. Mercer had fled to America and settled in Virginia. He had been an officer in the Virginia troops which formed part of Braddock's expedition, and had on that occasion been thrown much with Washington. He had embraced the Revolutionary cause with ardor and had organized a considerable number of troops in Virginia. On the 5th of June, 1776, Congress appointed him a brigadier-general. He did not live long to enjoy his position, as on January 3, 1777, he was mortally wounded at the battle of Princeton. He was attended in his last moments by Dr. Benjamin Rush.

Theodoric Bland, of Virginia, was a delegate to the first Continental Congress, and was again delegate to

Congress from 1780 to 1783. He raised a cavalry troop, which he commanded in person, and which reflected great credit on his military talents.

Dr. Arthur Lee was a physician in Williamsburg, Virginia. At the Revolution, however, he went into public life. In 1781 he was a member of the State Assembly, and served in Congress from 1782 to 1783. He subsequently held several appointments in the diplomatic service.

Dr. Walter Jones, of Virginia, studied medicine at Edinburgh, graduating about the year 1770. He was appointed by Congress, on April 11, 1777, as physician-general of the Middle Department. After the war he was returned to Congress.

North Carolina boasts of three physicians who achieved reputation in civil life. Dr. Nathaniel Alexander graduated from Princeton College, practised medicine in Mecklenburg, North Carolina, became a surgeon in the Continental army, and after the war was elected governor of the State.

Dr. Ephraim Brevard graduated from Princeton College, studied medicine, and finally practised in the town of Charlotte, North Carolina. It was Dr. Brevard who drafted the famous Mecklenburg Resolution, which passed on May 20, 1775, at a public town-meeting in that place, proclaiming much the same principles as those subsequently embodied in the Declaration of Independence. He was a surgeon in the Continental army, was made prisoner at the capture of Charleston by the British, and died shortly after his release.

Dr. Hugh Williamson was born in Pennsylvania, but lived and practised medicine at Edenton, North Carolina. He served during the war as surgeon in the North Carolina militia. He was a member of Congress in 1781

and 1782. He wrote a history of the State of North Carolina.

South Carolina furnishes two prominent names,—Drs. David Ramsay and David Oliphant. David Ramsay was a native of Lancaster County, Pennsylvania, where he was born on April 2, 1749. He graduated from Princeton in 1765, and subsequently took up the study of medicine in the Medical Department of what is now the University of Pennsylvania, but was then the College of Philadelphia. While studying medicine he became the intimate friend of Benjamin Rush. He received the degree of Bachelor of Medicine in 1772. His degree of Doctor of Medicine was conferred on May 11, 1780, and the mandamus conferring it says, "And the Degree of Doctor of Medicine on David Ramsay, now prisoner with the enemy."² At the beginning of the Revolution he was practising medicine in Charleston, South Carolina. He served in the militia of that State as surgeon, and was a member of the State Legislature from 1776 to the end of the war. In 1782 he was elected a member of Congress. In 1785 he was again elected to that body, and in the absence of the President of Congress, John Hancock, he served for one year as presiding officer. In 1785 he published his "History of the Revolution in South Carolina," and in 1790 his famous "History of the American Revolution." He was the author of many other minor works, chiefly of an historical character. He died May 8, 1815.

Dr. David Oliphant was prominent as a surgeon in the hospital department of the Continental army. He was a member of the Assembly of North Carolina, and after the war became judge of the District Court.

² Carson's History of the Medical Department of the University of Pennsylvania.

In the Revolutionary annals of Georgia there are the names of three medical men who deserve remembrance for the prominence of the parts they sustained in the struggle with the mother-country.

Dr. Noble Wimberly Jones was born in England in 1723 or 1724. His father was a physician who had accompanied General Oglethorpe to America when he founded the colony of Georgia. It was from him that the younger Jones derived his knowledge of medicine. The son took a prominent part from the very first in the Revolutionary proceedings. He was Speaker of the Georgia Legislature. When the British captured Charleston he fell into their hands and remained a prisoner for some months. After his release, in July, 1780, he came to Philadelphia, where he practised medicine until 1782. He was a member of Congress from Georgia from 1780 to 1782, when he returned to Georgia and was chosen member of the State Assembly and shortly afterwards its Speaker. Subsequently he moved to Charleston, South Carolina, where he practised medicine until 1788, when he returned to Savannah, and enjoyed a large practice in that city until his death, on January 1, 1805.

Dr. Lyman Hall, of Georgia, was a delegate to the first Congress of the colonies at Philadelphia, and serving in the same capacity was one of the signers of the Declaration of Independence in 1776. In 1783 he was elected governor of Georgia.

Dr. Nathaniel Brownson, of Georgia, was also a member of the Continental Congress of 1776. He served as a surgeon in the Continental army. After the war he became a member of the Georgia State Legislature, and later was elected governor of the State.

At the outbreak of hostilities between Great Britain and the colonists the latter possessed no regularly or-

ganized army, and of course had no system for the care of such of their number as might be wounded or become sick, but there was no lack of voluntary medical aid and surgical assistance rendered by the profession to the earlier sufferers in their country's cause.

There were nine patriotic physicians who furnished voluntary succor to those wounded in the fights at Lexington and Concord,—viz., Drs. William Aspinwall, John Brooks, John Cumming, William Dexter, Eliphalet Downer, Timothy Minot, Oliver Prescott, Joseph Warren, and Thomas Welch.

Almost all of these men were of the highest professional standing. Dr. Aspinwall is said to have acquired more skill and celebrity in the treatment of smallpox than any other physician of his time in New England. In the days before the discovery of vaccination, when it was the custom to inoculate for smallpox, he had the reputation of having performed the operation more often than any one else. He had a private hospital for that purpose in Brookline, Massachusetts. Thacher says,—

"He continued in the successful treatment of this disease [by this method] till the general introduction of vaccine inoculation. He had made ample accommodation for enlarged practice, and established what might have been justly deemed a sure foundation for prosperity, when vaccine was first introduced. He well knew that if vaccination possessed the virtues ascribed to it, his schemes of fortune and usefulness arising from inoculation at his hospital were ruined, that he should be involved in loss and his anticipations of fortune would be blasted. But as an honest man and faithful physician, he deemed it his duty to inquire into the efficacy of the novel substitute. With the utmost alacrity, therefore, he gave the experiment a fair trial, promptly acknowledged its efficacy, and relinquished his own establishment."

Drs. John Brooks and Joseph Warren we have already noticed.

Dr. John Cumming was a colonel in the colonial militia and a member of the Provincial Congress, but it is sad to record that he was possessed of such a faint heart that, owing to their lack of military resources, he became convinced the colonists would not succeed in throwing off the yoke of Great Britain, and consequently he resigned his positions and retired into private life soon after the conflict raged. However, this course did not seem to have prevented his subsequently acquiring a very large practice and leading a highly successful professional life.

Dr. Oliver Prescott, Jr., was extremely active in advancing the patriot cause from an early date. He was a member of the Provincial Congress of Massachusetts and became a major-general of the militia of the colony.

Dr. Eliphalet Downer practised medicine in Roxbury, Massachusetts; he became a regimental surgeon in the Continental army, and subsequently was surgeon to the cutter "Dolphin."

Dr. Thomas Welch graduated from Harvard in 1772, and was later surgeon to the Twenty-seventh Continental Regiment.

Dr. William Ward continued in the Continental army, first as surgeon's mate, in which capacity he served at Bunker Hill, afterwards as surgeon.

Dr. Timothy Minot graduated at Harvard in the class of 1747. He practised medicine in Concord, Massachusetts, and was highly successful.

Dr. William Dexter was born on April 17, 1755. He studied medicine under Dr. Flint, of Shrewsbury, Massachusetts. He continued in the medical department until the end of the war.

The American soldiers who were wounded at the battle of Bunker Hill were removed to the northern and western sides of the hill, where they received surgical atten-

tion from the surgeons accompanying the army. Frothingham³ mentions the following surgeons as attached to regiments engaged in that action,—namely, David Jones, surgeon of Colonel Samuel Gerrish's Massachusetts regiment; Obadiah Williams, surgeon of Colonel John Stark's New Hampshire regiment; Ezra Green, surgeon of Colonel James Reed's regiment; Thomas Kittredge, surgeon of Colonel James Frye's regiment. Lieutenant-Colonel James Bricket, of Colonel Frye's regiment, was a physician and seems to have served in a medical rather than a military character.

The following physicians were also present at Bunker Hill, either in a professional or military capacity:

Dr. Elijah Adams was surgeon's mate in Israel Putnam's regiment.

Dr. Jacob Bacon was surgeon's mate in Colonel Scammel's regiment.

Dr. Samuel Blanchard served in the ranks of the militia. On July 5, 1775, he was appointed surgeon's mate in Colonel Gerrish's regiment.

Dr. John Crocker was present at the battle, though in just what capacity I have been unable to ascertain. On July 5, 1775, he was appointed surgeon to Colonel Scammel's regiment.

Dr. William Dexter was surgeon's mate in Colonel Ward's regiment.

Dr. Eliphalet Downer was present as a surgeon.

Dr. Edward Durant was present in the same capacity. On July 5, 1775, he was appointed surgeon to Colonel Mansfield's regiment.

Dr. John Hart was surgeon's mate of Colonel Prescott's regiment.

³ Siege of Boston.

Dr. Martin Herrick served in the ranks at Bunker Hill. He was appointed surgeon's mate in Colonel David Hitchcock's regiment in 1776, serving until the end of that year. He was in the army again in 1777. In 1778 he was surgeon to the ship "Tyrannicide." In 1781 he was captured by the English. He was at one time assistant surgeon to Dr. John Brooks. He died at Reading, July 25, 1820, aged seventy-four years.

Dr. Walter Hastings was present as a surgeon. On July 5, 1775, he was appointed a surgeon in the army. He served in that capacity in Colonel Bridge's regiment.

Dr. Harris Clay Fridges served as a surgeon. On July 5, 1775, he was appointed surgeon's mate in Colonel John Mansfield's regiment.

Dr. Isaac Hurd was present, though in what capacity I do not know. He was appointed a surgeon in the Massachusetts militia in June, 1777.

Dr. Aaron Putnam was present, probably professionally. On July 5, 1775, he was appointed surgeon's mate in Colonel James Frye's regiment. On January 1, 1776, he was surgeon's mate of Colonel Baldwin's (Twenty-sixth) regiment.

Dr. David Shepard was surgeon to Colonel Danielson's regiment. In 1777 he was in Lieutenant-Colonel Robinson's (Third) regiment.

Dr. Isaac Spofford was surgeon of Colonel Nixon's regiment.

Dr. William Vinal was surgeon's mate in Colonel Gardiner's regiment.

Dr. Abraham Watson was present as a surgeon. On July 5, 1775, he was appointed surgeon of Colonel Gardiner's regiment.

Dr. Levi Willard was present as surgeon. On July 5,

1775, he was appointed surgeon of Colonel Reed's regiment.

Dr. Joseph Warren fell fighting as a soldier. His brother, Dr. John Warren, was not present at the fight, but came to the battle-field after it was over to search for his brother, and in attempting to pass the lines was wounded with a bayonet by a sentry.

Other surgeons who attended the wounded at the battle were William Eustis, David Townsend, and Samuel Tenny.

After the battle and subsequently to the various fights about Boston the wounded were removed to houses, which were converted into temporary hospitals, in Charlestown, Watertown, Roxbury, and Cambridge. In Edward Warren's "Life of John Warren" there is a letter from the latter to John Hancock, dated October 9, 1775, which presents so interesting a picture of the difficulties besetting the surgeons at that time that I insert it almost in full.

Warren had been surgeon to Colonel Timothy Pickering's regiment, but, when only twenty-two years old, he was made senior surgeon of the hospitals at Cambridge. James Thacher was his surgeon's mate, and said of him, "This gentleman has acquired a great reputation in his profession, and is distinguished for his humanity and attention to the sick and wounded soldiers, and for his humane disposition."

Warren wrote,—

"SIR,—At the request of a number of gentlemen employed in the American hospital at Cambridge, I have been prevailed upon, though I cannot boast the honor of a personal acquaintance with you, to assume the freedom of representing to your honor, as President of the grand Congress of the United Colonies, some inconveniences under which we labor; and I do it with the greater confidence, when I reflect upon the intimacy of that friendship which



DR. JOHN WARREN.

I know subsisted between you and a person whose fall I have peculiar cause to mourn. Though I most sensibly feel the complicated loss of a friend, a patron, and a brother, yet I mean not to avail myself of any advantages which might result from my near connection with him, in my present application. . . . Dr. Foster is appointed temporary Director of the hospitals, and the care which in consequence devolves upon him renders him incapable of attention to the business, which, as I have the honor to be next on the establishment, I am requested to perform. The suspension of the late Director from his station, has put us into great confusion, by reason of our not being able to acquaint ourselves with the particulars of the institution. We cannot obtain any information from him. We have been for some time past expecting warrants from the Continental Congress, but have not yet received them. We should be extremely gratified by having them expedited to us, or some directions which might remedy the inconveniences we experience from the fluctuating state we are at present in. The gentleman above referred to informed us that he was about to write to the Congress, recommending an additional appointment of two to the present number of surgeons, four only being already appointed, by which means it happens that two gentlemen at present officiate as chief surgeons at Roxbury, under an uncertainty with regard to their continuance, and are very importunate either to be confirmed or receive a dismissal. There are four houses here, appropriated to the purpose of receiving the sick and wounded in Cambridge, by the names of the Washington, Putnam, Lee, and Convalescent Hospitals, all of which contain, at present, about three hundred and fifty patients, being all the sick of the army in Cambridge, excepting such as are so slightly ill as to be attended with convenience in camp. The number is rather upon the decrease, and but a small number have hitherto died. Three houses are improved for the same purpose at Roxbury; the number of sick and wounded I cannot ascertain. Those surgeons who are already appointed are stationed in the several houses in Cambridge; the two who stand candidates attend to those at Roxbury. We cannot obtain information whether the appointments are to receive the sanction of the Congress, or whether the Director was invested with a discretionary power to make them, without a necessity of their being ratified by any other authority. The only person here from whom we could expect an answer to our queries is secluded from the whole world, and no person is admitted to an interview with him. Another article, to which, if I am not too tedious, I would beg your attention, is our deficiency with regard to medicines. We are already destitute of a number of capital articles, and I fear the difficulty, perhaps the *impractica-*

bility of importing a sufficiency, will increase the scarcity. . . . A variety of articles, the natives of this country, might be mentioned, which are indued with the most active qualities; suffice to mention one. The bark of the willow root has been found of late (and I have repeatedly experienced it) to answer many intentions of the Peruvian bark, one of the most important articles in the whole materia medica; of which the demand has, of late, been so great, that it has got to be one of the most expensive medicines. . . . If your honor can attend to the care of transmitting the regulations for the hospitals to us at Cambridge *speedily*, it will greatly conduce to the benefit of the public. In the interim, I am your honor's most obedient and humble servant

"JOHN WARREN.

"HON. JOHN HANCOCK, ESQ."

Very shortly after this Dr. Warren was appointed director-general of the hospital.

It became necessary later in the history of the camp about Boston to provide a special hospital for the accommodation of a number of smallpox patients, that disease having appeared among the soldiers. On June 27, 1775, the Provincial Congress of Massachusetts ordered such a hospital to be opened.

The increase in the number of sick and wounded in the army besieging Boston, and the establishment of the hospitals in the camp, pointed to the urgent necessity for the proper organization of a medical department competent to attend to the army's wants. In the early days of the siege each regiment that came to camp brought with it as surgeon whomsoever the colonel saw fit to appoint, and in some instances the colonels seem to have judged that a surgeon would be a useless incumbrance and not to have appointed one at all. There were no definite regulations as to what class of cases should remain for treatment in regimental hospitals and which should be sent to the general hospital. The surgeons were without any definite authority, absolutely destitute of any medical

or surgical supplies, except those provided by private means, and in many cases as ignorant and ill-educated men as could well have been found. The Provincial Congress of Massachusetts endeavored to remedy these conditions at an early date. On May 8, 1775, they appointed a committee, consisting of Drs. Church, Holten, Taylor, and Dinsmore, subsequently adding the names of Whiting and Bayliss, "to examine such persons who are or may be recommended as surgeons for the army now forming in the Colony." On June 16 they added Drs. Hall and Jones to the committee, its duties having increased so as to exceed the capacities of the original members to attend to them properly. On June 18, 1775, Drs. Church, Taylor, and Whiting were appointed a committee to "consider what method is proper to be taken to supply the hospitals with surgeons," and also to report on the necessary equipment for the establishment of hospitals for the troops.

On the 22d of June, three days later, the commanding officers of the Massachusetts regiments were ordered to present to this committee the names of the medical men who were desirous of serving as surgeons or surgeon's mates in their respective commands, and to cause these gentlemen to present themselves before the committee for examination as to their qualifications for the positions.

James Thacher⁴ has left us an interesting account of the manner in which he received his first appointment in the medical department of the Revolutionary army. In 1775 he had just completed his medical studies under Dr. Hersey, of Barnstable, Massachusetts, and he solicited an appointment in the hospital at Cambridge. A medical board consisting of Drs. Holten and Taylor had been

⁴ Military Journal.

appointed to examine the candidates, and on the day fixed for that purpose he appeared before them.

"On the day appointed the medical candidates, sixteen in number, were summoned before the board for examination. This business occupied about four hours; the subjects were anatomy, physiology, surgery, and medicine. It was not long after that I was happily relieved from suspense, by receiving the sanction and acceptance of the board, with some acceptable instructions relative to the faithful discharge of duty, and the humane treatment of those soldiers who may have the misfortune to require my assistance. Six of our number were privately rejected as being found unqualified. The examination was in a considerable degree close and severe, which occasioned not a little agitation in our ranks. But it was on another occasion, as I am told, that a candidate under examination was agitated into a state of perspiration, and being required to describe the mode of treatment in rheumatism, among other remedies he would promote a sweat, and being asked how he would effect this with his patient, after some hesitation he replied, 'I would have him examined by a medical committee.'"

Dr. Lemuel Hayward wrote to Dr. Edward Warren concerning these examinations as follows:

"SIR,—Dr. Morgan politely invited me to assist in the examination of the mates, but as Dr. Aspinwall is sick, 'tis impossible. Must, therefore, beg you to use the greatest candor towards the gentlemen that wait on you today. They have both attended the hospital with the greatest fidelity, and as to their abilities I submit to you, but I presume you will find them equal to their place. I was going to ask you to propose questions to them in such a manner that they may not be daunted, but I am too well acquainted with your disposition, not to expect everything that I can wish."

All which tend to show us that the examinations were sufficiently rigorous in character to maintain a high standard in the medical corps of the Massachusetts troops. In the other colonies, however, medical appointments seem to have been made in a most haphazard manner, without any regular system whatever. I transcribe a curious petition to the Provincial Congress of New York for a medical position. There were many similar to this



DR. JAMES THACHER.

presented, and in a great number of instances the applicant seems to have been appointed solely on the strength of his petition:

"JOHN HAMMELL TO THE PROVINCIAL CONGRESS, GENTLEMEN: Having served an apprenticeship of seven years to Englebert Kemmena, practitioner of physic and surgeon to the city of New York; in which capacity being desirous of joining the forces now raising in this Province for the maintenance of our rights and privileges, beg leave to lay myself before the Honorable House for Its approbation a Recommendation of my character, and abilities, which desirous to support, I have here enclosed, wishing to have the honour of being your humble servant.

"JOHN HAMMELL.

"NEW YORK, Tuesday afternoon, 4th July, 1775.

"John Hammell, of the city of New York, having studied Physick and Surgery by me with the strictest attention full seven years, during which time he hath conducted himself with the greatest honesty, and sobriety, and convinced of his being capable of practising, do commend him to any person that may occasion assistance of the faculty.

"ENGLEBERT KEMMENA.

"NEW YORK, July 3rd, 1775."

No other colony seems to have attached the same degree of importance to this intricate subject as Massachusetts. In most other instances the medical care of the soldiers seems to have been regarded as a subsidiary matter, and it was not until the Congress of the United States took up the subject and promulgated a set of uniform regulations for the medical service that in many States any organization at all had been effected.

On June 22 the Massachusetts Provincial Congress resolved,—

"That [the colonels] in the Massachusetts army be, and they are hereby directed to inform the committee appointed by Congress to examine the surgeons of said army, whom they recommend for surgeons and surgeon's mates of their respective regiments, and send them to said committee for examination without delay except such as have been examined."

On June 28, 1775, the Provincial Congress of Massachusetts voted, "that there shall be two surgeons and two mates appointed for each hospital and commissioned accordingly." The pay of the surgeons was fixed at eight pounds a month, and each mate was to receive four pounds ten shillings a month.

On June 28, 1775, the following was adopted as the form of commission for surgeons in the Massachusetts troops:

"THE CONGRESS OF THE MASSACHUSETTS BAY. To A. B. Greeting:—Being informed of your skill in surgery, and reposing special trust and confidence in your ability and good conduct, we do by these presents constitute and appoint you, the said A. B., to be surgeon of the regiment on foot, whereof — is Colonel, raised by the Congress aforesaid, for the defence of said Colony. You are, therefore, carefully and diligently to discharge the duty of a surgeon to the said regiment, in all things apertaining thereunto, observing such orders and instructions as you shall from time to time receive from the colonel of said regiment, according to military rules and discipline established by said Congress, or any of your superior officers, for which this shall be your sufficient warrant."

The Provincial Congress and Committee of Safety of Massachusetts also grappled vigorously the question of medical supplies for the army. On May 13, 1775,

"The Committee of Safety voted, that General Thomas be desired to deal out medicine to such persons as he shall think proper, for the use of the sick soldiers at Roxbury, until the surgeons for the respective regiments are regularly appointed."

On the following day they empowered Andrew Craigie, commissary of medical stores, to impress bedding and other necessities for the sick.

On June 12, 1775, the Provincial Congress appointed Drs. Whiting and Taylor and Mr. Parks a committee to report on the best method of supplying the surgeons with medical stores. They reported,—

"that whereas it appears that there is not as yet a sufficient number of medicine chests provided to furnish each regiment with a distinct chest; and whereas the Committee of Supplies are making provision for supplying each regiment with such medicine chests as soon as possible; therefore, Resolved, that the Committee of Supplies be, and are hereby directed immediately to furnish the surgeons of the First Regiment at Roxbury, each of them with a medicine chest for the present, and that all other surgeons in the army at Cambridge and Roxbury have free recourse to the said chests, and be supplied from them from time to time as they shall find occasion, until more ample provision shall be made for them, all of which is humbly submitted."

The Provincial Congress of Massachusetts appointed a committee to report on the method of disposal of the sick and wounded in the camp. On July 1 they reported as follows:

"The committee appointed to devise means for the better accommodation of the sick and wounded of the army reported. The report was read and is as follows, viz: In order that all the sick and wounded be provided and taken care of, in the best way and manner possible, Resolved, and it is hereby *Ordered*, That when any person in the army is so ill, either by a wound or otherwise, that the surgeon of said regiment to which the sick or wounded man belongs, finds the sick or wounded as aforesaid cannot be properly taken care of in the regiment to which he belongs, the said surgeon shall send the sick or wounded as above said, to the hospital provided for the use of the camps to which they belong, and a certificate of the man's name and the company and regiment to which he belongs; and in that case the surgeon of said hospital shall receive said wounded or sick under his care, and in case said hospital shall become too full, in that case the surgeon of said hospital shall send such of his patients as may be with safety removed, to the hospital in Watertown, and a certificate setting forth the man's name, what company and regiment each belongs to, and in that case the surgeon of the Watertown hospital shall receive said sick and wounded under his care."

The first action of the Continental Congress in the direction of organizing a medical department for the Continental army was taken on July 17, 1775, when a

committee was appointed, consisting of Mr. Paine, of Massachusetts, Mr. Lewis, of New York, and Mr. Middleton, of South Carolina, to report on the most suitable plan for the organization of a general hospital service in the Continental army. It was at that time the custom to designate the medical department of the army as the "Hospital," and this use of the term has given rise to considerable confusion. Later, as we shall see, the medical department was divided into the hospital (sometimes called the general hospital) and the regimental service, and surgeons were spoken of as hospital surgeons or as regimental surgeons.

On July 27, 1775, Congress passed the following resolution:

"Resolved, that for the establishment of an Hospital for an army, consisting of 20,000 men, the following officers and other attendants be appointed, with the following allowance and pay:

"A Director-General and Chief Physician, his pay four dollars per day.

"Four Surgeons per day, each one and a third dollars.

"One Apothecary, one and a third dollars.

"Twenty Mates, each per day, two thirds dollar.

"One Clerk, two thirds dollar.

"Two storekeepers, each four dollars per month.

"One nurse to every ten sick, one fifteenth of a dollar per day, or two dollars per month.

"Labourers occasionally.

"The duty of the above officers: The director to furnish medicines, bedding, and all other necessities, to pay for the same, superintend the whole, and make his report to, and receive orders from the commander-in-chief. Surgeons, apothecaries, and mates to visit and attend the sick, and mates to obey the orders of the physicians, surgeons, and apothecary. Matron to superintend the nurses and bedding, etc. Nurses to attend the sick, and obey the Matron's orders. Clerk to keep accounts for the director and storekeepers. Storekeeper to receive and deliver the bedding and other necessities by order of the director.

"That the appointment of the four surgeons and the apothecary be left to the Director-General and Chief Physician. That the

mates be appointed by the Surgeons, and that the number do not exceed twenty; and that the number be not kept on constant pay, unless the sick and wounded should be so numerous as to require the attendance of twenty, and to be dismissed as circumstances will admit; for which purpose the pay is fixed by the day, that they may only receive pay for actual service. That the Clerk, Storekeepers, and Nurses be appointed by the Director."

Dr. Benjamin Church, of Boston, one of the best-known physicians in New England, was appointed the first director-general and chief physician of the army. Apparently the choice could not have fallen upon one more fitted to properly perform the functions of the office. He had graduated from Harvard in 1754, and besides his professional reputation he was well known as a wit and the author of some poetical effusions of no mean merit. He had always loudly espoused the Whig cause and stood in very great esteem as an ardent patriot. Within a few months after his appointment, however, he was detected in a treasonable correspondence with the enemy. In October, 1775, he was tried by a general court-martial over which General Washington himself presided.

On October 5 Washington wrote the following report of the affair to Congress:

"I have now a painful, though a necessary duty to perform, respecting Dr. Church, Director General of the hospital. About a week ago Mr. Secretary Ward, of Providence, sent up to me one Wainwood, an inhabitant of Newport, with a letter directed to Major Cane in Boston in [occult] characters, which he said had been left with Wainwood some time ago, by a woman who was kept by Dr. Church. She had before pressed Wainwood to take her to Captain Wallace, Mr. Dudley the collector, or George Rowe, which he declined. She then gave him a letter with a strict charge to deliver it to either of those gentlemen. He, suspecting some improper correspondence, kept the letter, and some time after opened it, but not being able to read it, laid it up, where it remained until he received an obscure letter from the woman, expressing an anxiety

after the original letter. He then communicated the whole matter to Mr. Ward, who sent him up with the papers to me. I immediately secured the woman, but for a long time she was proof against every threat and persuasion to discover the author. However, at length she was brought to a confession, and named Dr. Church. I then immediately secured him and all his papers. Upon his first examination, he readily acknowledged the letter; said it was designed for his brother Fleming, and, when deciphered, would be found to contain nothing criminal. He acknowledged his never having communicated the correspondence to any person here but the girl; and made many protestations of the purity of his intentions. Having found a person capable of deciphering the letter, I, in the mean time, had all his papers searched, but found nothing criminal among them. But it appeared on inquiry that a confidant had been among the papers before my messenger arrived. I then called the general officers together for their advice—the result of which you will find enclosed. The deciphered letter is also enclosed. The army and country are exceedingly irritated; and, upon a free discussion of the nature, circumstances, and consequence of this matter, it has been unanimously agreed to lay it before the honorable Congress for their special advice and direction.”

Thacher says that the evidence upon which his conviction was based rested upon an intercepted letter to a friend in Boston, which was written in cipher; “and when deciphered and examined, its contents seemed in a considerable degree to justify the plea which he had made that it was designed as an innocent stratagem to deceive and draw from the enemy some information for the benefit of the public.” Many respectable and intelligent persons held that his guilt was never established. However, the court-martial found him guilty. He was placed in prison, but in the following year obtained permission to go to the West Indies. Nothing was ever heard of the ship in which he sailed from the time she left port, and it was supposed that she foundered at sea and was lost with all on board.⁵

⁵ Dr. Church's defence of his conduct will be found in Appendix A.

He was succeeded as director-general and chief physician by Dr. John Morgan, already one of the most distinguished men of his time.

Dr. Morgan received his appointment in October, 1775, and at once joined the army engaged in various operations in the immediate neighborhood of Boston. From the outset of his military career he resolutely set his face to combat the many evils which daily resulted to the sick and wounded from the lack of organization and the loose discipline which prevailed in the medical department. He required candidates for the last-named branch of the service to pass rigid examinations, and he exercised a vigilant supervision over the behavior and work of the members of the corps.

There was much jealousy and disputation between the regimental surgeons and those attached to the general hospital service. It seemed best that all supplies to regimental medical officers should be dealt out from the general hospital stores, and that the latter should thus be in some measure able to control the disposition to be made of the stores. This was resented by the regimental surgeons as infringing on their rights. Another source of contention was found in the orders issued that the sick as far as possible should be transferred from the regimental to the general hospitals. The greatest difficulty confronting Dr. Morgan, however, was that of obtaining hospital supplies. The finances of the Continental army were never in a particularly fine condition; but during Dr. Morgan's career as chief of the medical department they were at a very low ebb. Bandages, lint, and medicines were only to be had with the greatest difficulty, and that he got them at all seems to have been due to the energy and perseverance with which he nagged at Congress about the necessities of the sick.

Morgan made every effort to have a definite scheme drawn up by Congress regulating the respective relations of the hospital and regimental surgeons and clearly defining the duties of each. As we shall see, it was the jealousy and insubordination of the regimental surgeons which finally had a large part in causing his dismissal from the post of director-general. However, it must be allowed that he treated them with the utmost fairness, and tried his best to allay the causes of their discontent. In July, 1776, he invited the regimental surgeons and mates to meet him in a conference for the purpose of adjusting their differences and drawing up rules, to be submitted to Congress for its approval, for the future government of the medical department of the army. In his "Vindication" he publishes a copy of the rules agreed upon, but they were never adopted, as, on July 17, 1776, Congress passed the following law settling the matter. It was based on a memorial presented to it some time previously by Dr. Morgan. It provided,—

"That the number of hospital surgeons and mates be increased, in proportion to the augmentation of the army, not exceeding one surgeon and five mates to every five thousand men, to be reduced, when the army is reduced, or when there is no further occasion for such a number.

"That as many persons be employed in the several hospitals, in quality of storekeepers, stewards, managers, and nurses, as are necessary for the service, for the time being, to be appointed by the director of the respective hospitals.

"That the several regimental chests of medicine and chirurgical instruments which now are, or hereafter shall be, in the possession of the regimental surgeons, be subject to the inspection and inquiry of the respective directors of Hospitals, and the director-general, and the said regimental surgeons shall, from time to time, when thereto required, render account of the said medicines and instruments to the said director, or if there be no director in any particular department, to the director-general; the said accounts to be transmitted to the director-general, and by him to this Con-

gress, and the medicines and instruments not used by any regimental surgeon to be returned, when the regiment is reduced, to the respective directors, and an account thereof by them rendered to the director-general, and by him to this Congress. That the several directors of hospitals, in the several departments, and the regimental surgeons, where there is no director, shall transmit to the director-general regular returns of the number of surgeon's mates and other officers employed under them, their names and pay; also an account of the expenses and furniture of the hospital under their direction; and that the director-general make a report of the same from time to time, to the commander-in-chief, and this Congress.

"That the several regimental and hospital surgeons in the several departments make weekly returns of the sick to the respective directors in their departments. That no regimental surgeon be allowed to draw upon the hospital of his department for any stores, except medicines and instruments; and that when any sick person shall require other stores, they shall be received into said hospital and the rations of the said sick person be stopped, so long as they are in the said hospital; and that the directors of the several hospitals report to the commissary the names of the sick, when received into and when discharged, and make a like return to the board of treasury.

"That all extra expenses for bandages, old linen, and other articles necessary for the service, incurred by any regimental surgeon, be paid by the director of that department, with the approbation of the commander thereof. That no more medicines belonging to the continent be disposed of till further order of Congress.

"That the pay of the hospital surgeons be increased to one dollar and two-thirds by the day; the pay of the hospital mates to one dollar by the day, and the pay of hospital apothecary to one dollar and two-thirds of a dollar by the day, and that the hospital surgeons and mates take rank of regimental surgeons and mates.

"That the director-general and the several directors of hospitals be empowered to purchase, with the approbation of the commanders of the respective departments, medicines and instruments for the use of their respective hospitals, and draw upon the paymaster for the same, and make report of such purchases to Congress."

A curious sidelight on the economy of Dr. Morgan's administration is afforded in a letter written by him to Dr. John Warren on January 31, 1776:

"DEAR SIR,—I received yours of yesterday. I am afraid of not being able to meet with an opportunity of answering it, as I know of no conveyance by which to answer it. However, shall have it in readiness in case any opportunity offers. Dear as it is, I would have you engage a couple of sides of the leather, which you say the saddler says he can spare you. Nay, if he can make a shift to spare a third side, I would be glad to have it, as I fear it will not grow cheaper by delaying to get it. If you think the woolen webbing strong enough for tourniquets, I should be glad to have a piece, if the price is reasonable; otherwise, omit it for the present, or secure it as you think most desirable. I have no doubt we can get some made nearer at hand than Salem, by taking a little pains. I am, dear sir, your most humble servant,

"JOHN MORGAN."

The British troops evacuated Boston on March 14, 1776, and hostile operations were then transferred to other localities. The northern part of the State of New York had long been the theatre of much active warfare, the Americans having invaded Canada and there having been many engagements on Lake George and in that vicinity.

The direction of medical affairs in this region was under Dr. Samuel Stringer, who had been commissioned by Congress on September 14, 1775, as "Director of the Hospital and Chief Physician and Surgeon for the Army in the Northern Department." His pay was four dollars per day, and he was authorized to appoint four surgeon's mates.

Under his management, or mismanagement, things soon fell into a disgraceful state of confusion from lack of discipline and from the ignorance of the most ordinary medical matters displayed by the surgeons under him. There was a terrible scarcity of medical supplies, and the sick were obliged in many instances to go unattended from want of a sufficient number of surgeons. By virtue of the fact that he was at a distance from Dr.

Morgan, Dr. Stringer affected to assume that he was independent of Dr. Morgan and not subordinate to his orders. He complained to Congress directly of the scarcity of surgeons and surgeon's mates in his department, ignoring completely his superior officer. Notwithstanding these slights, Dr. Morgan magnanimously sought to render him all the aid possible. He sent him a number of competent assistants and all the supplies he could spare from his own scanty stock, and he backed up Dr. Stringer's appeals to Congress with his own, but that body turned a deaf ear to both of them.

Norris⁶ gives some very interesting information on these affairs of the Northern army. He quotes the following letter from Dr. Jonathan Potts to Dr. Morgan:

"FORT GEORGE, August 10th, 1776.

"The distressed situation of the sick here is not to be described, without clothing, without bedding, or a shelter sufficient to screen them from the weather. I am sure your known humanity will be affected, when I tell you we have at present upwards of 1,000 sick, and crowded into sheds, and labouring under the various and cruel disorders of Dysenteries, Bilious Putrid Fevers, and the effects of a confluent smallpox; to attend this large number, we have four seniors and four mates, exclusive of myself, and our little shop doth not afford a grain of Jalap, Ipecac, Bark, Salts, Opium, and sundry other capital articles, and nothing of the kind is to be had in this quarter; in this dilemma, our inventions are exhausted for succedaneums, but we shall go on doing the best we can, in hopes of a speedy supply. Dr. Stringer left us some days since in order to lay the situation of the Hospital before his Excellency General Washington, and endeavour to procure redress. . . . Dr. Stringer and myself have had some conversation respecting the expediency of acting under a Director-General of the whole Continent; this the Dr. was averse to, and mentioned some reasons which had weight with me; as you will see the Dr., I need not take up your time in mentioning them. For my own part I am resolved to be governed by such regulations as our wise Congress shall think proper, wishing nothing more than to contribute my mite towards

⁶ Early History of Medicine in Philadelphia.

the relief of our once distressed country, but now the glorious independent States of America. Pray present my most respectful compliments to his Excellency General Washington, and to Gen. Mifflin, and believe me to be, dear sir,

"Your affectionate and most humble servant

"JON^N POTTS."

On June 6, 1776, Congress had appointed Dr. Potts "Physician and Surgeon in the Canada Department, or at Lake George, as the General shall direct, but that this appointment shall not supersede Dr. Stringer."

On August 6, 1775, General Schuyler wrote as follows to Congress:[†]

"Out of about five hundred men that are here, near a hundred are sick, and I have not any kind of hospital stores, although I had not forgot to order them, immediately after my appointment. The little wine I had for my own table I have delivered to the regimental surgeons. That being expended, I can no longer bear the distress of the sick, and, impelled by the feelings of humanity, I shall take the liberty immediately to order a physician from Albany (if one can be got there, as I believe there may) to join me, with such stores as are indispensably necessary. If Congress should approve of this measure, they will please signify what allowance of pay will be made. If not, I shall discharge the person, whoever he be paying him for the services he may have performed."

General Thomas, who was in command of a division of the Northern Department of the army, refused to have his troops inoculated for smallpox, because it put too many of their scanty number on the sick-list. Smallpox, however, appeared among them, and they contracted the disease in the natural way, and soon his camp became a veritable pest-hole. As Washington Irving[§] says, General Thomas fell a victim to his own prohibition on June 2, 1776, when he died of smallpox.

[†] American Archives, fourth series, vol. iii. p. 48.

[§] Life of Washington, vol. ii. p. 241.

Dr. Morgan repeatedly appealed to Congress for a settlement of the disputes, which were interfering with all his attempts to introduce order in Dr. Stringer's department. Finally that body appointed an investigating committee, which reported in November, 1776.

As a result of its report Congress, on January 9, 1777, dismissed Dr. Stringer from his position, but unfortunately accompanied his discharge with that of Dr. Morgan. No explanation of the reasons leading to this action was vouchsafed in either case.

General Schuyler, who commanded the Northern Department of the Continental army, was greatly angered at Congress for discharging Dr. Stringer, and wrote some very fiery letters expressing his opinions, which resulted in Congress passing a resolution censuring him for improper behavior in treating it in an impertinent manner. The general wrote an explanation to Congress, which Norris quotes:

"In this the power of Congress to dismiss their servants without a formal inquiry, your memorialist, for his own part, never questioned; but its policy as a general rule, he humbly begs leave to observe, may be subject at least to one strong objection; it may tend to prevent men of worth and abilities from affording to the public that assistance which they are capable of giving, from the apprehension that the suggestion of clamours, too often arising from a jealousy of office, might expose them to the disgrace and injury of a dismissal without being heard in their own defence, . . . that he took it for granted that Congress was acquainted, that he had in a manner forced Dr. Stringer in the service; that in August, 1775, when sickness was spreading through the army under his command with great rapidity, and they were not only destitute of competent medical assistance, but even of medicines, his repeated solicitations, supported by the promise of a Member of Congress (the late Mr. Lynch), prevailed on Dr. Stringer to exchange an extensive and well-established practice for your service, and to appropriate a large stock of his own medicines to the public use, . . . that Dr. Stringer, since his dismissal, without any inquiry into his conduct, imputes the loss of a profitable business, as well as that of his

medicines, which cannot now be replaced, to your memorialist, who, for that reason, could not but be anxious to assign the motives to Congress for taking the measure, . . . he had expressed his wish of being informed of the reasons for dismissing Dr. Stringer, not as a right, but merely as a matter of compliment, and not from impatience and curiosity, but with a view to obviate that gentleman's complaints, . . . he did not mean to wound their dignity, or dispute their authority."

This apology was accepted by Congress and they withdrew their censure. Dr. Stringer, however, was not restored to his position.

The ultimate facts leading to the dismissal of Dr. Morgan and his conduct subsequent to that event are of much interest. They are fully set forth by Dr. Morgan himself in the pamphlet which he published in 1777, under the title "A Vindication of his Public Character in the Station of Director-General of the Military Hospitals and Physician in Chief to the American Army; Anno, 1776. By John Morgan, M.D., F.R.S., Professor of the Theory and Practice of Physic in the College of Philadelphia, Member of several Royal Colleges and Academies, and Philosophical and Literary Societies, in Europe and America, Boston, 1777." This little book relates in detail all the facts bearing upon Dr. Morgan's career in the army. He tells how he had left a large and remunerative practice, contrary to the advice of his friends, to answer his country's call; narrates in detail his method of management of the medical department, the economy he had introduced into its administration, the discipline he had enforced, the way in which he had eked out his supplies and managed to make them in some degree adequate for the necessities of the troops. It is by far the most interesting literary relic of the Revolution from a medical point of view, and I have drawn freely upon it in my relation of the events of the time.

In the Appendix⁹ will be found reprinted in full the memorial of Dr. Morgan, which he drew up for General Washington at the time of his dismissal, and which he prints as a part of the "Vindication." We think it will repay a careful perusal as a true narrative, and an interesting personal picture of the difficulties which confronted Morgan throughout his career.

From the moment of his discharge Dr. Morgan devoted himself to the task of obtaining an official vindication from the body which had so shamefully mistreated him. His patriotism was so great, however, that he sank his personal feelings in his love for his country and continued to aid in the work of the medical department.

The view he took of the action of Congress is stated by him as follows:

"It is an act into which they were suddenly forced by a party whom political necessity obliged them to gratify. But such is my opinion of the integrity, and such my reliance on the honour of Congress, as to believe that when they are furnished with the materials for judging properly, they will be as ready to do me justice, as a part of them have been to listen to the malice and misrepresentations of my adversaries, and to show their magnanimity, by allowing that they have been capable of an error by their readiness to redress it. I have endeavoured to discharge my duty in what I undertook from principle, according to my degree of knowledge and capacity, with fidelity and diligence; and what I value more than knowledge or capacity alone, with humanity; from whence results the approbation of a good conscience which as my enemies, with all their power cannot give, so neither can they take away."

Also in another place, he wrote,—

"But I will not do that Honorable Body the injustice to entertain a suspicion so derogatory to them, as to consider my dismissal and the manner of it, as a regular, deliberate act of the Whole Body, or what they approved. I have heard it alleged, in their defence,

⁹ Appendix B.

against so injurious a supposition, that many of the most respectable Members were absent; that some of the States were not represented at the time; and that several of the Members were wholly opposed to it; that it was an act into which they were suddenly forced, by the clamours of a party, whom political necessity, at the time, compelled them to gratify."

Dr. Morgan had been slighted a number of times by Congress, especially in the matter of Dr. Stringer, but what angered him more than any other of the injuries he felt he had received at its hands was the appointment, on October 9, 1776, of Dr. William Shippen, Jr., as director of the hospitals on the west side of the Hudson River. Dr. Shippen had been director of the hospital at the Flying Camp in the Jerseys, and as such had been directly subject to the authority of Dr. Morgan. He was by this order of Congress placed upon an equal footing with Dr. Morgan, whose authority was henceforth to be limited to the hospitals on the east side of the Hudson. Dr. Shippen was ordered to report directly to Congress, thus ignoring Dr. Morgan, through whom such reports had hitherto been made. It is sad to find Morgan blaming his quondam friend and colleague in the establishment of the Medical Department of the University of Pennsylvania as the chief author of his overthrow, but he does so in unequivocal language. He writes,—

"But I have good grounds to believe that his [Dr. Shippen's] underhand attempts to interfere with me, in my department, and his interest with a particular set, which has been employed to effect my removal, with a view to promote his design of succeeding me, have operated more powerfully to accomplish it, than all others that have been held up, as the ostensible causes of my removal which, however he may think, from being transacted behind a curtain, they lye concealed, can be easily traced to their author, and are of a tissue with the rest of his conduct towards me, on similar occasions."¹⁰

¹⁰ Vindication, p. 24.

Somewhat farther on he says,—

“Is it not manifest that the Director and his attachments, have, from his first coming into the service, pursued such measures, as they conceived were best calculated to raise him over the shoulders of every man, who stood in his way, and to constitute him Head of the department. How truly Machiavelian has been his conduct, and those who assisted him, *per fas atque nefas*, to accomplish his ends, whether right or wrong, to make all things subservient to them. . . . I am persuaded that both he and his adherents, have not only watched for, but made occasions to serve as a plausible pretext, for displacing me, to accomplish their own wishes.”

At the time of Dr. Shippen's appointment Congress was in session at Philadelphia, and to it Dr. Morgan repaired in order that he might obtain a definite explanation of the position which Dr. Shippen held in relation to him. Samuel Adams was appointed to interview Dr. Morgan, and what was the latter's chagrin and surprise to learn that the mismanagement of medical affairs in the Northern Department had been largely ascribed to him, and that because of these complaints and of allegations of negligence on his part in the care of the sick on the Jersey side of the Hudson it had been determined to place the latter in the care of Dr. Shippen. Morgan indignantly asserted his innocence of blame in these matters and demanded admittance to the floor of Congress that he might vindicate himself. This was refused on the ground that Congress was too busy with important state and military affairs. Congress shortly after moved itself to Maryland, and Morgan again sought an opportunity to appear before it, but was not allowed one. He was repeatedly urged to resign in this crisis of his affairs, but sturdily refused to do so. He then quietly returned, and again assumed charge of the sick on the east side of the Hudson. He drew up a Memorial addressed to Washing-

ton, seeking a court of inquiry into his management of the affairs of his department.

He gave this into Washington's hands on February 1, 1777, and the very next day the order by Congress for his dismissal was received.

Some of the charges against him bore upon the question of Dr. Morgan's personal honesty, and seem to have caused him, if possible, more pain even than the others.

In the "Letter to a Friend in Philadelphia," published in his "Vindication," he writes concerning accusations that had been circulated charging him with misuse of hospital stores and money. He sends him Boston newspapers containing a refutation of these charges, and writes,—

"The newspapers here referred to are the Independent Chronicle, of April 10th, and 17, and the Boston Weekly Advertiser of the 17th; from which it may be proper to acquaint the reader, that in that of April the 10th, being informed of some evil minded persons who had taken upon them to raise and circulate a number of false reports and groundless clamours, at Boston, on account of my having taken possession of the medicines and shop furniture of Dr. Sylvester Gardiner, and Dr. William Perkins, of Boston, for the use of the army; and to alledge that many of the sufferings of the sick, in the last campaign, arose from my having unjustly withheld from them (or from the REGIMENTAL SURGEONS) those stores which they were entitled to draw from the General Hospital. I came to Boston on purpose to call upon the persons pointed out, as the principal authors of those reports, requiring them to make good that charge, and at the same time inviting any persons, who had anything to offer against me, that regarded the faithful discharge of my trust, to step forth, and state their accusations. I then promised to lay before the publick, a faithful and exact account of every proceeding, relative to the discharge of my duty in the above station, by which they would be enabled to judge whether the charges were well-founded, or only proceeded from a spirit of malignity and detraction.

"In the papers of the 17th, I communicated the result of that examination, with a letter calling upon the author of the report, concerning the removal of the medicines, to know what he had to offer; to which he returned a short evasive answer, disclaiming

the charge which is there published, together with a full account of the transaction. In that paper the publick were informed, that in respect to the removal of the drugs, medicines, and shop furniture in question, I had the order of General Washington, in writing, for what I did, backed with a resolve of the Council and Assembly of the State of Massachusetts-Bay, after a sequestration of the property of those persons; that they were removed to New York for the use of the army;—that whatever was done by me, in this affair, was merely official;—that an inventory of the whole was left with the Boston Committee, that in case the former owners should be entitled to claim a restitution of their effects, the value might be duly ascertained;—that a particular and faithful account of everything done in this business, was transmitted to the Adjutant General, to be laid before the Commander in Chief, for which I received thanks, for the matter and manner of what I had done; and that an inventory of every hospital store, remaining on hand, being made out by the Apothecary of the General Hospital, with care and exactness, was transmitted to General Washington and the Congress, of which I kept an authentic copy; concluding this head with an address to those persons, to take shame and confusion of face to themselves, who judging only from the corruption of their own hearts, appear to think it impossible for men, to whom much is entrusted, to keep free from that pollution of hands, which they find in themselves such a proneness to contract. In regard to the second charge, which relates to the with-holding the hospital stores; this being reported against me by Dr. Story, Surgeon of Col. Little's regiment, I wrote a letter to him, April 8th, calling on him to explain himself for taking such unwarrantable licence, as he had done, assuring him that no man, be his rank in life what it may, should be suffered to do it, with impunity; Dr. Story declining to take any notice of it, that letter was published in the Independent Chronicle, of the 17th of April, with the following Declaration of Col. Joseph Trumbull, Esq., Commissary-General of the American army.

“To all whom it may concern.

“Be it known that—whereas I have been informed that it has been industriously propagated by some evil-minded person, in divers parts of the Country—that Dr. John Morgan, late Director-General of the Continental Hospital, has drawn from the Commissary-General's office, the well rations, for the sick, while in the General Hospital, and that he has pocketed the same for his own emolument; I have this day made examination of my books, clerks, &c—and find that I have not a charge in my books of a *single penny* paid to said Dr. Morgan, or any other Hospital Surgeon under him, on

account of rations for the sick; nor did I ever Pay any thing, on that account to Doctor Morgan, so that there cannot be the least foundation for such aspersion of his character.—I have paid LARGE SUMS for the rations of the sick in *Regimental* and *Brigade Hospitals*, to many *Brigade* and *Regimental* Physicians and Surgeons, but never a farthing to said Doctor MORGAN, or any General Hospital Physician or Surgeon whatever.

“ Given under my hand at Hartford, 2nd of April, 1777

“ JOSEPH TRUMBULL

“ Commissary General.

“ N.B. The publick are now informed that Dr. Story having afterwards insinuated—that, ‘when he was properly called upon, he did not doubt he should be able to support what he had at any time advanced.’ I called upon him in person, for an explanation, when he thought fit to deny, that, at the very time he affirmed the suffering of the sick to have arisen from the cause assigned, of withholding from the Regimental Surgeons, or sick what he supposed them entitled to draw from the General Hospital, (to which, however, they had no claim) ‘he had any thought of Dr. Morgan’s intention to defraud the Continent.’ Lastly, it is proper it should be known that the aforementioned invitation, if any man had anything to alledge against the faithful discharge of his trust to step forth and declare it, has been also printed in the Rhode Island, Connecticut and Philadelphia papers, without any the least reply; from whence all men may judge how groundless, as well as malicious, those clamours were; and no doubt will, on behalf of injured innocence, feel a just indignation at the authors thereof.”

Although, as he states, similar cards were published in many newspapers in different places, no one came forward to verify the various rumors which had been circulated by Dr. Morgan’s enemies.

The surgeons of the general hospital service rallied to Dr. Morgan’s support with generous ardor. It must be remembered that they were, as a rule, a distinctly superior class of men to the majority of regimental surgeons. They drew up a memorial of their esteem for him, in which they recounted the many ways in which he had improved the medical service and labored for the welfare of the sick and wounded.

Among the names affixed to this document were those of John Warren, William Eustis, Philip Turner, and Isaac Ledyard, and Morgan states that the other surgeons of the general hospital, Drs. Foster, Adams, McKnight, and Burnet, would have testified in the same manner, but being absent on duty their signatures were unobtainable.

Immediately upon his discharge Dr. Morgan demanded from Congress a formal investigation into the charges upon which he had been dismissed. This request was not complied with for more than two years, the matter being put off by the Medical Committee of Congress on the plea of more pressing business. Finally a committee was appointed, consisting of Mr. Drayton, of South Carolina, Mr. Harvey, of North Carolina, and Mr. Witherspoon, of New Jersey, to investigate the management of the medical department during the time he was at its head. This committee reported to Congress, and I reprint in full the proceeding in Congress by which Dr. Morgan received the tardy acknowledgment of his innocence. It is dated June 12, 1779.

"Congress took into consideration the report of the committee to whom was referred the Memorial of Dr. John Morgan, late Director-General and Physician-in-Chief in the General Hospital of the United States, and thereupon came to the following resolution:—

"*Whereas*, by the report of the Medical Committee confirmed by Congress on the 9th of August, 1777, it appears that Dr. John Morgan, late Director-General and Chief Physician of the General Hospitals of the United States, had been removed from office on the 9th of January, 1777, by reason of the general complaint of persons of all ranks in the army, and the critical state of affairs at that time; and that the said Dr. John Morgan, requesting inquiry into his conduct, it was thought proper that a Committee of Congress should be appointed for that purpose.

"*And Whereas*, on the 18th of September last, such a committee was appointed, before whom the said Dr. John Morgan hath, in the most satisfactory manner, vindicated his conduct in every respect as

Director-General and Physician-in-Chief, upon the testimony of the Commander-in-Chief, General Officers, officers in the General Hospital Department, and other officers in the army, showing that the said Director-General did conduct himself ably and faithfully in the discharge of the duties of his office; Therefore,

"Resolved, That Congress are satisfied with the conduct of Dr. John Morgan, while acting Director-General and Physician-in-Chief in the General Hospitals of the United States, and that this resolution be published."

On April 11, 1777, Dr. William Shippen, Jr., was appointed Dr. Morgan's successor as director-general and physician-in-chief of the hospital. Dr. Shippen was an active, alert, and conscientious man, and he was determined to maintain the high standard in his department which had been inaugurated by his predecessor. Congress also appointed the following medical officers at the same time as Dr. Shippen to the different divisions of the army:

In the Middle Department, Dr. John Cochran was made physician and surgeon-general, with Dr. Walter Jones as physician-general and Dr. Benjamin Rush as surgeon-general. In the Eastern Department, Dr. Isaac Foster was appointed as deputy director-general, with Dr. William Burnett as physician and surgeon-general, Dr. Ammi Ruhamah Cutter as physician-general, and Dr. Phillip Turner as surgeon-general. In the Northern Department, Dr. Jonathan Potts was appointed deputy director-general, with Dr. John Bartlett as physician and surgeon-general, Dr. Malachi Treat as physician-general, and Dr. Forgue as surgeon-general.

Dr. William Shippen, Jr., held the office of director-general and physician-in-chief of the hospital until January, 1781, when he resigned. His successor was Dr. John Cochran.

These appointments indicate the importance which Congress attached to the various offices. The fame of

Shippen and Rush has made their careers familiar to all. Cochran, Craik, and Cutter had had much experience as army surgeons in the colonial wars. Cochran was born in Chester County, Pennsylvania, on September 1, 1730. He studied medicine under Dr. Thompson, of Lancaster, Pennsylvania, and in 1755 received an appointment as surgeon's mate in the army with which England overthrew the colonial empire of France in America. After the war he practised medicine in Albany, New York, where he married a sister of General Schuyler. He offered his services to Congress in 1776. In 1777, General Washington wrote Congress concerning him as follows:¹¹

"I would take the liberty of mentioning a gentleman whom I think highly deserving of notice, not only on account of his abilities, but for the very great assistance which he has afforded us in the course of this winter, merely in the nature of a volunteer. This gentleman is Dr. John Cochran, well known to all the faculty. The place for which he is well fitted, and which would be most agreeable to him, is Surgeon General of the middle department; in this line he served all the last war in the British service, and has distinguished himself this winter, particularly in his attention to the smallpox patients and the wounded."

It was in fulfilment of this wish of Washington's that his appointment was made. He succeeded Shippen in 1781 as director-general and physician-in-chief of the hospital. After the war he settled in New York, where he died in 1807.

Dr. James Craik was a Scotchman, who had received his medical education in his native land. He came to Virginia and served with Washington on Braddock's expedition. He probably sustained as intimate personal relations with Washington as any of his contemporaries. Washington in his will termed him "My compatriot in

¹¹ Thacher, *American Medical Biography*.

arms, my old and intimate friend." He likewise owed his appointment largely to the influence exerted by Washington on his behalf. He served throughout the whole of the War for Independence, being director-general of the hospital at Yorktown at the time of the surrender of Cornwallis. After the war he settled in practice in Maryland, but at Washington's solicitation he removed to Mount Vernon. In 1798, when war with France was threatening, Washington appointed him chief of the medical department of the army. He attended Washington in his last illness. He died February 6, 1814, at the advanced age of eighty-four years.

Dr. Cutter was born in what is now the State of Maine in 1734. He graduated at Harvard in 1752, and then studied medicine under Dr. Clement Jackson, of Portsmouth, New Hampshire. In 1755 he became surgeon to Roger's Rangers, which was a body of frontier troops engaged in the French-English War. In 1758 he was surgeon to the New Hampshire troops which participated in the capture of Louisburg from the French. On his return he built up an extensive practice at Louisburg. On receiving his appointment he assumed charge of the hospital at Fishkill on the Hudson. After the war he resumed his practice, was one of the founders and for a long time president of the New Hampshire Medical Society. He died in 1819, aged eighty-five years.

As we have already stated, after the siege of Boston was ended hostile operations were transferred to other localities, especially to the northern portion of the State of New York. In July, 1776, a hospital was established in the city of Albany for the reception of the sick and wounded of the American army. Dr. Thacher was assigned to service at this hospital, and has left us a most interesting account of various incidents which occurred

during his tour of duty. The hospital was located in a building which had been used for the same purpose in the wars between the English and French. It had two stories, with a wing at either end, and a piazza in front, and could accommodate five hundred patients. It was pretty well filled up after the battle of Crown Point and Fort Ticonderoga. On October 24, 1777, Thacher's Military Journal contains the following entry:

"This hospital is now crowded with officers and men from the field of battle. Those belonging to the British and Hessian troops, are accommodated in the same hospital with our own men and receive equal care and attention. The foreigners are under the care and management of their own surgeons. I have been present at some of the capital operations and remarked that the English perform with skill and dexterity, but the Germans, with a few exceptions, do no credit to their profession; some of them are the most uncouth and clumsy operators I ever witnessed and appear to be destitute of all sympathy and tenderness towards the suffering patient. Not less than one thousand wounded and sick are now in this city; the Dutch Church and several private houses are occupied as hospitals. We have about thirty surgeons and mates, and all are constantly employed. I am obliged to devote the whole of my time from eight o'clock in the morning to a late hour in the evening, to the care of our patients. Here is a fine field for professional improvement. Amputating limbs, trepaning fractured skulls, and dressing the most formidable wounds, has familiarized my mind to scenes of woe. A military hospital is peculiarly calculated to afford example for profitable contemplation and to interest our sympathy and commiseration."

Other hospitals for the Continental troops during hostilities in this region were established at Peekskill and Fishkill on the Hudson. They were well crowded at several times during their existence, as the fighting in their neighborhood was on occasions very severe.

Connecticut had a large general military hospital at Stamford, in charge of Dr. Philip Turner. Many of those wounded in the campaigns in New York, or who

became sick from the hardships undergone during them, were sent to the Connecticut hospital for treatment. This State also very early established a convalescent hospital for such of her soldiers as might return to their native State before fully recovering from their wounds or illness.

In the course of military events in Pennsylvania and the neighboring States the Pennsylvania Hospital in Philadelphia was used at various times for the reception of the sick and wounded of both the British and American armies. According to Morton,¹² the first reference to the Revolutionary War which occurs in the records of the hospital is on December 5, 1776, when the Committee of Safety placed a number of sick and wounded soldiers in the wards. On January 8, 1777, a large number of wounded soldiers, sailors, and Hessians were admitted.

When the English forces occupied Philadelphia on September 26, 1777, their officers took forcible possession of the hospital for the use of their soldiers, and when they evacuated the city they took with them all the blankets, bedding, and instruments which they could get their hands on, for which the hospital was never repaid.

In 1778 the Americans were again in possession of the city. On July 22 of that year the managers entered into an agreement with Dr. Jonathan Potts, Deputy Director-General, and Dr. Thomas Bond, Assistant Director-General, of the medical department of the Continental army, whereby the Elaboratory (afterwards known by the name of the North House, and until torn down in 1896 used as the receiving ward) of the hospital was turned over to the medical department for use as a pharmacy for the preparation of medicines for the army hospitals.

¹² History of the Pennsylvania Hospital.

Pennsylvania Hospital July 22. 1778

Applications having been made to the Managers of this Institution by Dr. Thomas Bond Secy. & D.D. of the military Hospital, D.D. Jonathan Chase D.D. of the said Military Hospital, requesting the use of the Laboratory for the purpose of preparing & compounding Medicines for the use of the military Hospital, the Managers having taken the same into their consideration, are ready & willing to accommodate them with the use of the said Laboratory upon the following conditions viz.

That they will cause at their own Expence a proper Fence to be made from the South East Wall of the said Laboratory to the Wall enclosing the present Outward, so as to cut off all Communication between the said Laboratory & the Pennsylvania Hospital, leaving the said Fence for the use of the said Hospital.

That all the Materials & Instruments belonging to the said Laboratory, shall be returned in the same good Order as which they are delivered according to an Inventory to be taken.

That neither the Persons employed in the said Laboratory nor any of the military be permitted to interfere with the Managers of the said Hospital nor have any Intercourse with the Buildings or Patients here or with the Patients.

Agreed by

Saml. Bond
D.D.
Thos. Bond
D.D.

J. Combatt
Saml. Rhoads
Wm. Mowell
Edw. Pennington
J. Bond
Samuel Bond
D.D.
John B. B. B.

Contract granting use of the Laboratory of the Pennsylvania Hospital to the Surgeons of the Continental army.
(From Morton's "History of the Pennsylvania Hospital.")

On September 8, 1778, the following entry is found on the minutes of the hospital:

"Doctor Bond, Jr., of the Continental Hospitals applied to the Board for admission of a large number of convalescent soldiers, under the direction and management of their physicians and surgeons, to which mode the managers objecting, and upon a free conference it was proposed to admit from time to time such of them as having passed the usual examination of the attending physician and sitting managers, may be deemed proper objects; so far as they can be accommodated without prejudice to our own patients, and they being subject to the rules and management established in the house. The soldiers, if admitted, are to be supplied with bedding and provisions, which can be delivered to our steward by their commissaries, their nursing to be paid for as shall hereafter be agreed upon."

It was not always convenient for the managers to receive the large numbers of patients which the military authorities wished them to accommodate. The principles of faith of many of the managers forbade their taking any active part in the contest, and there was a great reluctance on the part of some of them to appear in any way to sympathize with those who were in arms against their fellow-men, even in a just cause. Four of the managers,—namely, Israel Pemberton, James Pemberton, Thomas Wharton, and Edward Pennington, had undergone exile to Virginia because of their apparent lack of sympathy with the patriot cause.

At a meeting of the Board of Managers held March 30, 1779, a communication was read from J. Melcher requesting accommodation for a number of convalescent soldiers, for whose reception "a reasonable rent" would be paid. The minutes state that

"Samuel Rhoades, Edward Pennington, Jos. Swift, and Robt. Strettell Jones were appointed to inform him, that no part of this house can be conveniently spared for the purpose he requires, and that we had reason given us to expect, when we accommodated the doctors of the Continental Army, with our laboratory, that they

would secure us against being further incommoded; and to use such other arguments as may occur to them, to convince him of the inexpediency and impropriety of his request, which if he does not decline, they are to apply to the General, and such others in power as may be proper to prevent the soldiers being sent there."

However, at another meeting, April 1, 1779, Dr. Bond appeared before the board and submitted another request to the same purport, as follows:

" 'Doctor Bond, Jr., requests the managers of the Pennsylvania Hospital would receive a number of convalescent patients from the general hospital into theirs, as the Bettering House is exceeding crowded, and the prescribing surgeons of the military hospitals has pointed their house as the most proper for their purpose; they and Dr. Bond agree that they shall be under the care of Dr. Story as Steward, but that a military surgeon will prescribe to them; that Doctor Bond will be in town, and hereby engages to do everything in his power to restrain the Soldiery, and prevent their committing damages and behaving irregularly, and the said Bond further promises to do all in his power to remove them totally from thence in six weeks. The lower ward and garret only will suffice.'

" Which the managers taking into consideration agree to receive such convalescents as having passed the usual examination of the attending physicians and sitting managers may be deemed proper objects, so far as they can be accommodated in the lower ward and long garret, under the care of their own physicians and surgeons, but subject to the rules and government established in the hospital. The soldiers upon admission are to be supplied free of any expense to the Institution, with bedding, provisions, firewood and all other necessities—their victuals to be cooked by some person appointed by Dr. Bond or his agents for that service, in the wash-house, and that a reasonable compensation be allowed for the use of the house. The managers duly considering the trust reposed in them, apprehend they cannot receive patients upon other terms, no persons afflicted with any infectious distemper, can on any account be admitted, and they are rather induced to acquiesce in this proposal from Dr. Bond's engaging 'to do all in his power to remove them in six weeks.'

On June 16, 1779,

"Dr. Bond, Jr., waited upon the Board, and returned thanks for the use of the house for the convalescents of the military hospital and expressed his desire of paying for the same. The managers

leave it to the doctor's generosity to make such compensation for the benefit, as he may deem adequate."

In July, 1782, Dr. Bond desired to arrange for the admission to the hospital of a number of Continental soldiers, and also a number of British prisoners, who were sick in the gaol. As among the latter there were cases of contagious disease, the board refused to admit any suffering from such a disorder. Dr. Bond "insisted that all the sick must be admitted or none." Finally his proposal was absolutely rejected, as follows:

"The board having maturely considered Dr. Bond's proposals are of opinion they are totally inadmissible, being in direct repugnance to the rules of the institution."

In 1783 the Hospital again received a large number of sick Continental soldiers as pay patients.

Christopher Marshall, of Philadelphia, a well-known druggist and much respected member of the Society of Friends of that city until he was cut off by them because of the active part he took as a patriot in the struggle with Great Britain, was appointed by the Council of Safety of Philadelphia to look after the needs of such sick and wounded as might be brought to that city. In his Diary kept at that time he has left us many glimpses of his active work in their behalf. The first time any large number of them was brought to Philadelphia was in December, 1776. He provided for most of them in the Bettering House, as the Almshouse was then called.

From an entry in his Diary¹³ for January 14, 1777, it would appear that there was occasionally a little friction between the civilians who were engaged in looking after the wants of the sick and wounded and the medical officers of the army. He writes,—

¹³ Edited by William Duane, Philadelphia, 1839.

"A number of sick soldiers coming in. Visited to-day by Dr. Shippen, Jr., who being chief physician for the army here, proposed the taking of the sick soldiers from the sundry houses in this city, where they are now placed, into the House of Employment to-morrow. This proposal I communicated to the Council of Safety, (who had requested me to take charge of the sick soldiers about a month past,) in order for their determination, but received no answer this evening, as they were very busy.

"On the 17th of January he writes that the council sent 'for answer to us that we should proceed in our appointment as before, without paying any regard to Wm. Shippen's notices, etc., upon which we resumed our former care and regard to the sick soldiers and prisoners.'"

During the summer of 1776 army hospitals were established at Amboy, Elizabethtown, Fort Lee, New Brunswick, Trenton, and Newark.

Wickes¹⁴ copies the following return from "American Archives:"

"AMBOY, Nov 1, 1776.

"DEAR SIR:—Enclosed is a return of the sick in my hospital. Besides these there are in each regiment a number called sick, that are not proper subjects for the hospital, and under the care of regimental surgeons, though there are no regimental hospitals. This will account for the difference between the no. of sick in Col. Griffins return and mine.

"Your obt. Serv't,

"To RICHARD PETERS.

WILLIAM SHIPPEN, D. H., &c."

A return of the sick in the hospitals of the Flying Camp and Jersey militia:

"At Amboy.—Two Hospitals—Sick 90; wounded 7; Total 97.

"At Elizabethtown.—Sick, 54; wounded, 3; sick from Canada, 25; Total, 82.

"At Fort Lee.—Sick of our own, 73; wounded, 9; distressed New England troops, 19; total 93. (?)

"Brunswick.—Sick 10; Total 10.

"Trenton.—Sick 56; do, 56.

"Amount of whole, 308."

¹⁴History of Medicine in New Jersey, p. 64.

Shippen adds that he

"Has not taken charge of near 2,000, that are scattered up and down the country in cold barns, and who suffer exceedingly for want of comfortable apartments, because Dr. Morgan does not understand the meaning of the Hon. Congress, in their late resolve, and believing yet they are to be under his direction, although they are on this side of the Hudson River. He is now gone over to take Gen. Washington's opinion. As soon as I receive the General's orders on the subject, I shall exert my best abilities, etc."

Washington was a thorough believer in inoculating the troops in order to prevent an outbreak of smallpox among them.

In the spring of 1776 he caused Mrs. Washington to undergo inoculation while she was staying in Philadelphia, as he was fearful lest she might in some of her frequent visits to the army contract smallpox.

In 1776, while the army was undergoing a season of comfortable repose at Morristown, New Jersey, he had a number of houses in the neighborhood fitted up as inoculation hospitals, and caused a general inoculation, not only of the troops, but also of the people in the vicinity of the camp. The Rev. Jacob Green and the other clergy of Morristown lent him most important aid in this work.

"They arranged hospitals and dictated every plan with a precision and positiveness that was not to be disobeyed by their parishioners, and such was the weight of this authority that very few disregarded it, and that few of them died of the foul disease."

The Hanover church was used as a hospital for such as had contracted smallpox in the natural way, and Washington Irving says that almost all of this class of patients died, whereas but few of those inoculated failed to recover completely.

On February 5, 1777, Washington wrote to Congress from Morristown, that

"The small pox has made such head in every quarter that I find it impossible to keep it from spreading through the whole army in the natural way. I have therefore determined not only to inoculate the troops now here that have not had it, but shall order Dr. Shippen to inoculate the recruits as fast as they come to Philadelphia. They will lose no time because they will go through the disease while their clothing, arms and accoutrements are getting ready."¹⁵

After the battles of Brandywine and Red Bank and the numerous minor engagements which took place in Pennsylvania and New Jersey at that time, a general hospital was established at Princeton, New Jersey, of which Dr. James Tilton, who later during the war of 1812 was physician and surgeon-general to the United States army, was in charge. He tells us¹⁶ how the promiscuous mixing of a large number of sick with the wounded men in this hospital resulted in an outbreak of jail fever, to which he himself fell a victim, and only recovered after a severe illness.

Twice during the Revolution the little Moravian village of Bethlehem, Pennsylvania, was occupied by the sick and wounded of the Continental army. My information on this subject is practically entirely derived from a most interesting article by Mr. Jordan, of the Historical Society of Pennsylvania, which appeared in the *Pennsylvania Magazine of History and Biography* for July, 1896.

It is to Mr. Jordan that we owe the most graphic description of a Revolutionary army hospital in our possession, and the mass of information he has sifted out so carefully is of inestimable value.

The first occupancy was from December, 1776, to April, 1777, and occurred when Cornwallis, after de-

¹⁵ Sparks's Life of Washington.

¹⁶ Tilton, Observations on Military Hospitals.

feeding General [unclear]
had followed [unclear]
Jersey. [unclear]
Americans at [unclear]
cided that Bethlehem
safety for them. [unclear]
and great was the [unclear]
Cornelius Baldwin, of [unclear]
December 3, 1776, and [unclear]
Warren:

"TO THE COMMITTEE OF THE TOWN OF BETHLEHEM
IT MAY CONCERN.

"GENTLEMEN:—According to [unclear]
ton's orders the General Hospital at [unclear]
hem, and you will do the greatest [unclear]
providing proper buildings for their [unclear]
capacious will be the most convenient. [unclear]
you will act upon this occasion as [unclear]
Doctor Baldwin, the gentleman who waits upon [unclear]
upon the business of providing proper [unclear]
begging therefore that you afford him all [unclear]
gentlemen,

"Your most obedient humble servant,

"JOHN WARREN,

"Gen'l. Hospital Surg'n and J. T. Manager

In the afternoon of the same day Dr. William Shippen
and Dr. Warren also arrived, and made the [unclear]
arrangements for the reception of two hundred and fifty
sick soldiers.

Dr. Shippen is quoted as saying that all the patients
at Morristown had been ordered to Bethlehem, but [unclear]
"we had shown such a willingness to provide for them,
he would now arrange to quarter the greater number at
Easton and Allentown."

The sick began arriving at once and in the most pit-
able condition, after their long midwinter journey in

rough-riding wagons. Quartermaster and commissary supplies were not at hand for two or three days subsequent to this influx into the town, and the Moravians generously provided for the wants of the suffering. The Single Brethren vacated their quarters in order to give the soldiers room. The Rev. Mr. Ettwein, of the Brotherhood, should always be held in loving remembrance by Americans for the unselfishness and devoted zeal with which he rendered his services to the sick men. He visited the sick twice a week, bringing them all the comfort he could in their unfortunate condition. Mr. Ettwein records that there were sixty-two deaths in the hospital during the month of December, most of them attributable to the exposure incident to the removal of the general hospital from Morristown. Throughout this occupancy of the town he places the total number of deaths at one hundred and ten.

In February, 1777, smallpox was brought into the settlement by some soldiers, but the prompt inoculation of forty of the men and some children saved the place from an epidemic. On the 27th of March the hospital was ordered transferred to Philadelphia, and the order was obeyed as quickly as possible, leaving the gentle Moravians to resume their routine, not to say humdrum mode of existence, from which they had been so rudely awakened. There were, however, some among the soldiers too sick to be removed with the rest, among them Colonel Isaac Reed, of the Fourth Virginia Regiment, who was sent to Philadelphia on June 22, 1777, and died in that city a month later, and Dr. John Duffield, who did not leave until July 7, and is recorded as "the last of the sick attached to the hospital here."

After the battle of Brandywine, when it became necessary for the Americans to abandon Philadelphia, the

second occupation of Bethlehem as a Continental army hospital occurred. Dr. Shippen sent Dr. Hall Jackson to Bethlehem, where he arrived on Tuesday, September 19, 1777, bearing the following letter to the Rev. Mr. Ettwein:

"MY DEAR SIR: It gives me pain to be obliged by order of Congress to send my sick and wounded to your peaceable village, but so it is. Your large buildings must be appropriated to their use. We will want room for two thousand at Bethlehem, Easton, Northampton, etc., and you may expect them Saturday or Sunday. I send Dr. Jackson before them, that you may have time to order your affairs in the best manner. These are dreadful times, consequences of unnatural wars. I am truly concerned for your society and wish sincerely this stroke could be averted, but 'tis impossible. I beg Mr. Hasse's assistance. Love and compliments from, my d'r sir,

"Your affectionate humble servant,

"WILLIAM SHIPPEN, D. G."

Mr. Jordan quotes the Rev. Mr. Ettwein as follows:

"Seeing ourselves under the necessity of relieving the distress of the country, we gave orders for the vacation of the Single Brethren's House, and its inmates to be distributed in Nazareth and adjacent settlements. On Saturday we began to realize the extent of the panic that had stricken the inhabitants of the capital, as crowds of civilians as well as men in military life, began to enter the town in the character of fugitives."

Among the wounded were Generals Lafayette and Woodford. In a few days the buildings appropriated for hospital use were filled, and tents had to be used for those for whom room could not otherwise be found. The army surgeons wished to take for their purposes either the "Sisters'" or the "Widows' House," but the Rev. Mr. Ettwein succeeded in having them exempted from seizure.

The following proclamation was issued by the members of Congress, who were then among the fugitives in Bethlehem:

"BETHLEHEM, Sept. 22nd, 1777.

"Having here observed a diligent attention to the sick and wounded, and a benevolent desire to make the necessary provision for the relief of the distressed as far as the power of the brethren enables them, we desire that all continental officers may refrain from disturbing the persons or property of the Moravians in Bethlehem; and particularly, that they do not disturb or molest the houses where the women are assembled.

"Given under our hands at the place and time above mentioned.

"JOHN HANCOCK.

WILLIAM DUER.

SAMUEL ADAMS.

CORNELIUS HARNETT.

JAMES DUANE.

RICHARD HENRY LEE.

NATHAN CROWNSON.

HENRY LAURENS.

NATHANIEL FOLSOM.

BENJAMIN HARRISON.

RICHARD LAW.

JOSEPH JONES.

ELIPHALET DYER.

JOHN ADAMS.

HENRY MARCHANT.

WILLIAM WILLIAMS.

"Delegates to Congress."

On October 7, 1777, the wounded from the battlefield of Germantown began to arrive, and by the 22d there were four hundred patients in the hospital and fifty in tents, and the doctors announced that they could accommodate no more.

But on the 28th of October Hospital Commissary Hugh James arrived with orders from Dr. Rush to provide immediately for the reception of one hundred more patients. To fulfil this order they were obliged to put up a number of frame buildings for the doctors, attendants, and guard, so that the sick might be placed in the more substantial houses.

In December the hospital became terribly overcrowded, and remained so into the spring. The ventilation was poor and the place became filthy, and putrid fever claimed many victims. There were seven hundred patients crowded at one time into the house of the Single Brethren, which had been previously considered overcrowded by four hundred patients. One reason for this over-

crowding is pointed out by Dr. Shippen in a letter to Congress, wherein he states that many soldiers who were entirely recovered were obliged to remain in Bethlehem for want of suitable clothing in which to return to the army.

Mr. Jordan thinks that the number of deaths in the Bethlehem hospital during this second occupation may be computed at upward of five hundred. Among those who died were Dr. Joseph Harrison, Dr. Aquila Wilmot, and Hospital Steward Robert Gillespie, of the hospital staff. The two latter were buried in the "Strangers' Row" of the Moravian cemetery. The reasons for this high rate of mortality are not far to seek. Mr. Jordan gives us the statements of three of the surgeons connected with the hospital,—namely, Drs. William Smith, William Brown, and Moses Scott.

Dr. Smith states,—

"That he had known from four to five patients die on the same straw before it was changed, and that many of them had been admitted only for slight disorders. Of the eleven junior surgeons and mates, ten took the infection, most of them dangerously so, and one, Dr. Joseph Harrison, had died, and of the three hospital stewards, two had died and the third narrowly escaped. Owing to the crowded wards, and the want of almost every necessary, it was impossible to prevent an infection, and that the sufferings of the sick could not be attributed to negligence or inattention of the surgeons and physicians."

Dr. William Brown says,—

"That when the hospital was opened it was many weeks without so necessary articles as brooms, and that at last he was obliged to have them taken from the inhabitants of the town."

Lastly, Dr. Moses Scott writes that during the three months which he spent in the hospital

"Between eight and nine hundred patients were admitted, thirty-four of whom died, and that owing to the moving of the hospitals

in the beginning, it was almost impossible to make exact returns of the sick and wounded. Upon computation, allowing four feet for each patient, we concluded that the house would hold three hundred and sixty without crowding."

Dr. James Tilton¹⁷ on his way home from the hospital at Princeton on sick-leave stopped for a short time in Bethlehem, and he has left us the minutes of an interesting conversation which took place between himself and several of the surgeons of the Bethlehem hospital, as follows:

"During my stay, it was natural to enquire into the state of their hospital. The method I took was to propose a competition, not whose hospital had done the most good but whose hospital had done the most mischief. I was requested to give an account of Princeton hospital. I stated with all the exaggeration I could with truth, not only affecting mortality among the sick and wounded soldiers, but that the orderly men, nurses and other attendants on the hospital were liable to the infection, that I had myself narrowly escaped death; and that five other surgeons and mates had afterwards been seized. I was answered that the malignity and mortality of Princeton Hospital bore no comparison with theirs; that at Bethlehem not an orderly man or nurse escaped, and but few of the surgeons; that one surgeon, Jos. Harrison, a fine young fellow, distinguished for his assiduity, had died, and to give me some idea of the mortality of this hospital, one of the surgeons asked me if I were acquainted with that fine volunteer regiment of Virginia, commanded, I think, by Col. Gibson. I answered I knew it only by reputation. He then went on to say that forty of that regiment had come to that hospital, and then asked me how many I supposed would ever join the regiment? I guessed a third or the fourth part. He declared solemnly that not three would ever return, that one man had joined his regiment; that another was convalescent and might possibly recover, but that the only remaining one besides, was in the last stage of the colliquative flux and must soon die. I was obliged to acknowledge the hospital at Bethlehem had been more fatal than that at Princeton."

Dr. Shippen summed up the causes of the mortality at Bethlehem to be, in his opinion,

¹⁷ Observations on Military Hospitals.



DR. JAMES TILTON.

1

"The want of clothing and covering necessary to keep the soldiers clean and warm, articles at that time not procurable in the country; partly from an army being composed of raw men, unused to camp life and undisciplined; exposed to great hardships, and from the sick and wounded being removed great distances in open wagons."

In the beginning of 1778 the authorities began the removal of the hospital, and by the 8th of April the final order for its closure was promulgated. The fever had wrought great mischief to the poor Moravians, seven of the Single Brethren having died during the occupancy of their house, also a son of the Rev. Mr. Ettwein.

Mr. Jordan quotes the report of General Lachlan McIntosh, who superintended the removal of the hospital, to General Washington. This is the only report of the hospital found in the archives at Washington. It states that from January 1 to April 12, 1778,

"Eighty-one soldiers died, twenty-five deserted, one hundred and twenty-two were discharged and sent to the army; eleven were at the shoe factory [in Allentown], two were attending on sick and wounded officers, and all the rest removed from the hospital."

At Lititz, another Moravian village, in Lancaster County, Pennsylvania, a Continental army hospital was established and maintained from December, 1777, until August, 1778.

Mr. Jordan's account of it is fully as interesting as is his account of the hospital at Bethlehem.

Dr. Samuel Kennedy arrived at Lititz on December 14, 1777, with a written order from General Washington for the inhabitants to provide accommodations for two hundred and fifty sick and wounded soldiers. It was again the Single Brethren upon whom the blow fell most heavily. They were again obliged to vacate their house in spite of many expostulations by Bishop Hehl.

On December 19 eighty sick arrived, and the follow-

ing day fifteen wagon-loads more were received. There were but two doctors attached to the hospital. Putrid fever broke out in a few days and both the doctors were prostrated with it, and Dr. Adolph Meyer, the Moravians' physician, had to fill their places until relieved, ten days later, "by a doctor who was a German from Saxony."

There were seven deaths in ten days from the fever, a pretty high mortality, and in January, 1778, it became epidemic, and five Moravians, who were serving as volunteer nurses, and the assistant pastor of the congregation, the Rev. John J. Schmick, died of it.

In January Dr. William Brown, one of the most capable medical officers in the Continental army and author of the first American pharmacopœia, was placed in charge of all the Continental army hospitals in Lititz and its vicinity, and Dr. Francis Allison, Jr., was associated with him.

In March, 1778, the inhabitants, to their great consternation, heard that Dr. Shippen contemplated the establishment of a general hospital at Lititz. The Rev. Mr. Ettwein wrote to General Washington imploring him to countermand any order to that effect that might have been issued.

Washington wrote to him on March 28, from Valley Forge, to the following effect:

"SIR—I have received your letter of 25th, by Mr. Hasse, setting forth the injury that will be done to the inhabitants of Lititz by establishing a general hospital there—it is needless to explain how essential an establishment of this kind is to the welfare of the army, and you must be sensible that it cannot be made anywhere without occasioning inconvenience to some set of people or other. At the same time it is ever my wish and aim that the public good be effected with as little sacrifice as possible of individual interests, and I would by no means sanction any burdens on the people in whose favor you remonstrate, which the public service does not require.

The arrangement and distribution of the hospitals depends entirely on Dr. Shippen, and I am persuaded that he will not exert the authority vested in him unnecessarily to your prejudice. It would be proper, however, to represent to him, the circumstances of the inhabitants of Lititz, and you may, if you choose it, communicate the contents of this letter to him.

"I am sir,

"Your most obed't ser't,

"GEO. WASHINGTON."

Bishop Hehl wrote to Dr. Shippen about the matter, and was answered as follows:

"SIR—I am so much affected at the very thoughts of distressing a society I have so great an esteem for, that you may depend upon it I will not put into execution the proposal of removing the inhabitants of Lititz, unless cruel necessity urges, which at present I don't imagine will be the case. If we should fix the General Hospital and take more room in your village, it shall be done in a manner the least distressing and disagreeable to your flock that is possible, of which I will consult you. I am sir, your and the congregation's affectionate and very humble servant,

"W. SHIPPEN.

"MANHEIM, 9 April, 1778."

However, the necessity for removing the inhabitants of Lititz out of their homes never arose.

General McIntosh reported of this hospital, that from February 1 to April 20, 1778,

"264 wounded and sick soldiers have been admitted to the hospital, that 142 had been discharged and sent to camp; 83 had died and deserted, and 39 were under treatment."

This report also stated,—

"The accounts of the first doctors cannot be found. This is a convenient and pleasant place for a hospital, and is so near Lancaster, that the same office and surgeons may attend both. The hospitals at Schaefferstown [Lebanon] and Ephrata should be removed here, as both are very inconvenient."

On the 21st day of August the surgeons were ordered to make preparations for the removal of the patients, and

on the 28th they began sending them to Lancaster and Yellow Springs. During the occupation of the house of the Single Brethren one hundred and twenty soldiers had died in it.

In May, 1776, Congress passed resolutions establishing an army hospital in Virginia, and appointing Dr. William Rickman physician and director-general of it. The hospital was located in Williamsburg, and it had been at first intended to convert the College buildings to hospital uses, but finally a building known as "the Palace" was taken for the purpose. The French troops used the College later. Dr. James Tilton was left at Williamsburg in charge of the American sick and wounded after the surrender of Lord Cornwallis at Yorktown, when General Washington with his army went north. The French troops remained cantoned at the same place. He writes¹⁸ of their hospital as follows:

"Being thus in a French garrison I had some opportunity of observing the French practice and management of their sick. In passing the wards of their hospital, their patients appear very neat and clean, above all examples I had ever seen. Each patient was accommodated with everything necessary even to a night cap. Nevertheless, they were not more successful than we were. Even their wounded, with all the boasted dexterity of the French to aid them, were no more fortunate than ours. I was led to attribute their failure principally to two causes. For ease and convenience, they had contrived a common necessary for their whole hospital, the college, a large building three stories high, by erecting a half hexagon, of common boards, reaching from the roof down to a pit in the earth. From this perpendicular conduit doors opened upon each floor of the hospital; and all manner of filth and excrementitious matters were dropped and thrown down this common sewer into the pit below. This sink of nastiness perfumed the whole house very sensibly and, without doubt, vitiated all the air within the wards. In the next place their practice appeared to me to be very inert. When passing their wards with the prescribing physicians, I observed

¹⁸ Observations on Military Hospitals.

a great number of their patients in a languid and putrid condition and asked occasionally if the bark would not be proper in such cases? The uniform answer was no, too much inflammation. And when they had attended my round of prescription and saw me frequently prescribing the bark, in febrile cases, and even for the wounded, they lifted up their hands in astonishment. Few or no chemical remedies were employed by them. One of their regimental surgeons declared that he never used opium. Their hospital pharmacopeia consisted chiefly of ptisans, decoctions, and watery drinks, fitted only for inflammatory disorders. All these circumstances considered, satisfied my mind why their ample accommodations gave them no advantage of us in the result of practice. I was the more surprised as Doctors Cost and Borgelli appeared to be men of science, well qualified to make research."

In 1780 the French fleet arrived at Providence, Rhode Island, on their mission of aid to the Americans. Dr. Craik was deputed by General Washington to prepare hospitals at that point for the proper reception of any of the French king's officers and men who might be in need of medical assistance on their arrival in this country. General Washington furnished Dr. Craik with the following letter to the governor of Rhode Island:

"HEADQUARTERS, MORRISTOWN, May 25, 1780.

"SIR:—Dr. Craik, assistant director general of the hospitals in our army, will have the honour of delivering this letter to your excellency. This gentleman comes to Providence to provide hospitals and such refreshment as may be wanted in the first instance for the sick, which may be on board the fleet of His most Christian Majesty when it arrives. The Doctor will consult with your excellency about the houses which will be necessary and proper upon the occasion, and on the best mode of obtaining the refreshments which he may think it necessary to provide. He will stand very materially in need of your good offices in this interesting business, and in a particular manner will want the assistance of the State, either to advance him money or their credit, for laying in the requisite supplies. This I am persuaded they will most readily give him, from an earnest desire to afford every possible comfort and accommodation to the sick of our good and great ally, who have the strongest claim to our attention and generosity. Your excellency will be pleased to have the account of disbursements incurred on the occa-

sion, kept in a clear and particular manner, which will be punctually paid by Mons. Carne, Commissary at War to his most Christian Majesty; or Mr. Damour, his consul, in gold or silver, or in bills of exchange on France, on the arrival at Providence. One of these gentlemen will be there in a short time.

"I have the honour to be with highest respect your excellency's most

"Obedient servant

"GEORGE WASHINGTON.

"TO HIS EXCELLENCY
GOVERNOR GREENE."

The citizens of Providence objected most strongly to the proposition which was first advanced,—namely, to take the College buildings in the town for hospital purposes. While the matter was under discussion General Heath addressed the following letter to the governor of the State, explaining the importance of early action in the matter:

"GENERAL HEATH TO THE GOVERNOR OF RHODE ISLAND.

"PROVIDENCE, June 18th, 1780.

"SIR: I was this morning honored with yours of yesterday. Please accept my thanks for your kind congratulations and wishes that my command may be happy. I am sorry to give your Excellency or the Honorable Assembly any interruptions in your important deliberations; but from an anxiety that every preparation may be made for the reception of the sick of our illustrious ally, I am constrained to do it. Every exertion is in exercise to have the hospital in readiness, but Dr. Craik informs me that it will be some time before the buildings he is removing and repairing will be completed. Should the fleet soon arrive, unless some other buildings are taken up as a reserve, on such an emergency the sick will suffer, and the service receive injury. I find Dr. Craik has a high opinion of the accommodation and situation of the college in this town. I find that the inhabitants are much against that seminary's being taken as a hospital or infectious diseases introduced among the inhabitants. Your Excellency is fully sensible of how much importance it is that hospitals should be provided and at the same time that it should be effected in a manner if possible that will not excite an idea in the breasts of our allies, that there is not an hearty acquiescence in every measure adopted for their comfort and convenience. I have been informed that a committee has been appointed for the purpose

of taking up buildings. Permit me to express a wish that every step may be taken without loss of time which our allies can reasonably expect, or the honor of our country requires.

"I have the honor to be, with the greatest respect

"Your Excellency's most obedient servant

"W. HEATH.

"TO HIS EXCELLENCY GOVERNOR GREENE.

"P.S. I am not acquainted with the situation of the place where hospitals are now preparing. I am informed it has a fine salubrious air, but from reports am apprehensive that it may be annoyed by the enemy's shipping if left unprotected and a removal from the place easily prevented but with this you are best acquainted.

"W. H."

The protest of the citizens finally proved successful, the Legislature passing the following resolution making arrangements for the French hospital elsewhere than in the College buildings:

"Whereas his Excellency General Washington by his letter to His Excellency the Governor on the 25th day of last month, hath requested this state to give their assistance to Dr. Craik, assistant director general of the hospitals of the continental army who hath in consequence of instruction from Gen'l. Washington come into this state to provide hospitals and refreshments for the sick which may be on board His Most Christian Majesty's fleet now expected in this State, and this Assembly taking into consideration the said request, and earnestly desiring to afford every possible comfort and assistance to the sick and distressed of the illustrious ally of the United States. Do vote and resolve, that it be, and hereby is recommended to Ephraim Bowen, Jr., Esq., deputy quartermaster general to cause the buildings on the farm in Bristol lately belonging to Wm. Vassel Esq., to be immediately put in proper repair for the said purpose and that he cause such additional buildings to be erected on the said farm and on the school farm adjoining thereto, as shall with the buildings first mentioned, be sufficient to contain the numbers and answer the purposes pointed out in the said instructions to Dr. Craik. That John J. Clark, Jonathan Arnold, and Benjamin Bourne Esqs. be and they hereby are, appointed a committee to advise with the said Ephraim Bowen, Jr., respecting the repairs necessary for the said buildings and the most suitable places to erect new ones; and that in case the number of sick shall exceed the

provision made for them, the said committee advise the said Ephraim Bowen, Jr., where and what other buildings shall be taken up for their accommodation and comfort, and for the more speedily effecting the said purposes. It is hereby recommended to the said Ephraim Bowen, Jr., to cause such barracks as may be at Tiverton and at the north end of Rhode Island, to be removed to the said farms, and also to make use of a large frame in Tiverton near Col. Pardon Gray's. It is further voted and resolved, that Dr. Jonathan Arnold and Dr. Isaac Senter be, and they are hereby, appointed a committee to advise with the said Dr. Craik, respecting the necessary means and measures to be pursued to Prevent any contagious disorders, which may prevail amongst the said sick, from being communicated to the inhabitants of the State. And for enabling the said Ephraim Bowen, Jr., to carry the aforesaid purpose into execution, and to supply the said Dr. Craik agreeably to the said request. It is further voted and resolved that he be, and hereby is, empowered to draw the sum of £10,000, lawful money, out of the general treasury."

We are all familiar with the terrible privations undergone by the soldiers in the American army, but I think that one can hardly conceive the fearful scarcity of medical and surgical supplies with which the medical men of the army had to contend.

Morgan¹⁹ details the result of an order issued on July 3, 1776, requiring the regimental surgeons to forward a report of the surgical supplies which they had in their possession. The surgeons of only fifteen regiments responded. This Morgan ascribed,

"if not to that backwardness which the Regimental Surgeons ever shewed to complying with General Orders, perhaps, to a conscious shame of being entirely destitute of any necessary articles, but what they had been previously indulged to draw from the General Hospital. Some of them, whom I afterwards met, and inquired into the cause of their neglect, confessed this to be the truth."

Among the fifteen regiments,

"All the instruments were reported to be private property, and amounted to six sets of amputating instruments, two of trepanning

¹⁹ Vindication.

ditto, fifteen cases of pocket instruments, seventy-five crooked, and six straight needles. Amongst the whole fifteen Surgeons, there were only four scalpels, or incision knives, for dilating wounds, or any other purpose; three pair of forceps for extracting bullets; half a paper and seventy pins; and but few bandages, ligatures, or tourniquets, and as little old linen, lint or tow, but what they had procured from the General Hospital; and only two ounces of sponge in all."

Many of these surgeons excused themselves by stating that they understood that these supplies would be furnished to them upon their joining the army.

Dr. Norris quotes a number of most interesting extracts from letters which he had had the opportunity of reading which bear upon the same point. Thus Dr. Binney, of the general hospital, was sent from the army in New York to Philadelphia to purchase some urgently needed surgical instruments. But he reported

"that there was no instruments to be purchased at any rate, and that the only workmen in the city that could make surgeons' instruments was engaged by Congress upon arms, and could not undertake any work for a long time to come."

Dr. James Hutchinson wrote

"that during the winter of 1778 there was such a want of lancets, that numbers of the regimental surgeons, and some of those of the flying hospital were without one."

I have transcribed from Norris the three letters which follow. They represent so graphically the condition of affairs with which we are dealing that I cannot forego the pleasure of presenting them to the reader.

The first is from Dr. Bartlett to Dr. Potts.

"HEADQUARTERS, July 26th, 1777.

"DEAR SIR:

"Your favour of the 25th inst. I have this moment received. Shall comply with the requisition contained, though I shall be left with but two Regimental Surgeons in the whole army. I am this moment

returned from Fort Edward, where a party of Hell Hounds, in conjunction with their brethren, the British troops, fell on our advance guard, and inhumanely butchered, scalped, and stripped four of them, and wounded two more, each in the thigh; four more are missing. Poor Miss Jenny McCrea, and the woman with whom she lived, were taken by the savages, led up the hill to where there was a body of British troops, there the poor girl was shot to death in cold blood, scalped and left on the ground; the other woman not yet found. The alarm came to camp at two P.M., I was at dinner. I immediately sent off to collect all the Regimental Surgeons, in order to take some one or two of them along with me to assist, but the Devil a bit of one was there to be found, except three mates, one of whom had the squirts; the other two I took with me. There is neither amputating instruments, crooked needle, or tourniquet in all the camp. I have a handful of lint, and two or three bandages, and that is all. What in the name of wonder I am to do in case of an attack, God only knows; without assistance, without instruments, without everything. What can have become of Stewart with the stores, medicine chest, my baggage, etc. If it is consistent with the public good, and agreeable to your opinion, pray assist me with one or two of your surgeons. My respectful compliments to yourself and all the Fraternity.

"I am, Sir

"Your very humble servant

"JNO. BARTLETT

"DR. POTTS, Dep. Director-Genl. M.D."

The second letter illustrates the anger of Dr. Cochran at what he regarded as criminal neglect of the sick in the army. It is addressed to Dr. Potts at Morristown, New Jersey.

"DEAR SIR:—

"I received your favor by Dr. Bond, and am extremely sorry for the present situation of the Hospital finances; the stores have all been expended for two weeks past, and not less than 600 Regimental sick and lame, most of whom require some assistance, which being withheld, are languishing and must suffer. I flatter myself you have no blame in this matter, but curse on him or them by whom this evil is produced. The vengeance of an offended Deity must overtake the miscreants sooner or later. It grieves my soul to see the poor, worthy brave fellows pine away for want of a few comforts which they have dearly earned. I shall wait on his Excellency, the

Commander-in-Chief, and represent our situation, but I am persuaded it can have little effect, for what can he do? He may refer the matter to Congress, they to the Medical Committee, who would probably pow-wow over it for a while, and no more be heard of it. Thus we go before the wind. Compliments to all friends, and believe me, Dear Sir,

"Yours, very sincerely,

"JOHN COCHRAN."

The last of the three letters is from Dr. Thomas Bond, Jr., to Dr. Potts, and in it he likewise gives vent to his indignation at the sufferings of the soldiers, which he is obliged to witness without means of alleviating.

"DEAR POTTS:—

"The Hospitals are all suffering for want of stores, particularly wine, spirits, tea, coffee, rice, and molasses. Very grievous complaints were made me yesterday by Dr. Moses Scott and Tilton, at Baskenridge; they suffer very much by the commissioners not being furnished with cash by which they can procure milk and vegetables, matters so necessary to a sick person. God! 'twould make you feel and rouse every pulse within you to see a fine brave fellow who has nobly fought in most of our battles, perhaps been dangerously wounded in one or more, and by the application of some prudent and generous remedies which were in our power then to furnish him with, soon recovered; I say would rouse every feeling now to see this brave man languishing on a sick bed, with his physician holding his wrist, and promising to send him some more *Physic*, when perhaps a glass of generous wine, or some comfortable hospital store would rouse his drooping spirits, and prolong that life which has, and is from principle devoted to the service of his country. I shall talk the matter over very freely with the General the first opportunity, and let him know our situation, by which the blame must be taken off your shoulders. I have wrote a small tale of the pathetic for our brave soldiers, but I have another grievous one to relate for ourselves. Joe and myself have spent all our money, and fear, unless we can borrow, we shall starve; do pray prevent it by sending us cash. You may depend upon it, no Surgeons of the army can lend us a shilling.

"Yours,

"THOS. BOND, JR.

"DR. JONATHAN POTTS, Dep. Director-Genl., Philadelphia."

Warren⁹⁹ prints a letter from Dr. Morgan to Dr. John Warren which shows how little could be done to provide for the emergencies of battle. It is dated August 23, 1776, four days before the battle of Long Island.

"Sir:—I have sent to the surgeons, desiring the youngest off duty to go to your assistance, and take four mates with him; to carry over five hundred additional bandages, and twelve fracture boxes. I fear they have no scalpels, as whatever I have committed to the hospitals has always been lost. I send you two, in which case, if you want more, use a razor for an incision knife. Let me know, from time to time, at Long Island.

"J. MORGAN

"To Dr. WARREN, Surgeon of the General Hospital at Long Island."

Just think of Dr. Morgan's being unable to dole out more than two scalpels to the surgeon who was to have charge of the wounded in what it was anticipated would be a bloody battle, and of the necessity that a razor should be used instead of a scalpel.

The same shortage prevailed as regards medicines, as will be seen in the following letter to Dr. Warren:

"GENERAL HOSPITAL, NEW YORK.

"Sir

"I have put up the medicines you wrote for—what was in the store. There was no powdered bark and I have sent the gross. The tartar emetic which is sent, is made here, and bound to be good as any, although it looks so black. Jalap and rhubarb, we have none. I have put up some sal. cath. as a substitute. The nitre and cream of tartar is likewise sent. Dr. Foster desires to be remembered to you, and he would have wrote to you himself, but he has so much business on his hands he could not find time to. Our troops have evacuated Governor's Island, since you went away. It is said they made a scandalous retreat, and left a number of cannon, etc., on the Island. If you should want any more medicines, if you will send, I will put them up if they are in store.

"Your most obedient

"J. BARTLETT."

⁹⁹ Life of John Warren, p. 99.

In 1778 Dr. John Warren was senior surgeon of the general hospital in Boston, which was situated very near what is now the location of the Massachusetts General Hospital. So great was the difficulty he experienced in obtaining sufficient supplies for his hospital that he finally wrote the following:

"TO HIS EXCELLENCY THE GOVERNOR AND THE HONORABLE THE COUNCIL OF THE COMMONWEALTH OF MASSACHUSETTS:—

"GENTLEMEN:—Though I have frequently represented the distressed condition of the sick in the Continental Hospital, yet I have never had so ample occasion to deplore their miseries as at present.

"For some days they have not had an ounce of meat; not a stick of wood but what they have taken from the neighboring fences; for near a week not a vegetable; and scarcely any medicine for above a year. In fine, to sum up the whole in a few words, the sick and wounded, many of which are exceedingly dangerous, and some of them in a state which requires immediate amputation, are not furnished by the public with a single article of sustenance except bread alone, and must have perished ere this had not the charitable donations of a few individuals in some measure contributed to their relief. I have been incessantly making application for these last twelve months to all the departments for supplies, but cannot procure any. During which time the groans of the sick and wounded, suffering and perhaps dying, for want of necessities, have been perpetually saluting my ears. I must, therefore, beg your Excellency and Honor's action in this matter, and am with the greatest respect, Gentlemen,

"Your most obedient servant

"J. WARREN"²¹

Any opportunities which presented themselves of getting possession of the much coveted medical supplies of the British were eagerly seized. At the evacuation of Boston the British left behind them considerable quantities of hospital stores. There is in the "Life of John Warren" an affidavit made by the latter, which brings forward an accusation of the most atrocious behavior on

²¹ Life of John Warren, by Edward Warren.

the part of the British. Dr. Edward Warren thinks the outrage was attributable to the malice of subordinates or camp followers. It could never have been countenanced by any Englishman of position. John Warren's deposition was as follows:

"I, John Warren, of Cambridge, physician, testify and say, that on or about the twenty-ninth day of March last past, I went into the work-house of the town of Boston, lately improved as a hospital by the British troops, stationed in said town, and, upon examining into the state of a large quantity of medicine, there by them left, particularly in one room supposed to have been by them used as a medicinal store room, I found a great variety of medicinal articles lying upon the floor, some of which were contained and secured in papers, whilst others were scattered upon the floor, loose. Amongst these medicines, I observed small quantities of what, I supposed, was white and yellow arsenic intermixed; and then received information from Dr. Daniel Scott, that he had taken up a large quantity of said arsenic from over and amongst the medicine, and had collected it chiefly in large lumps, and secured it in a vessel. Upon receiving this information, I desired him to let me view the arsenic, with which he complied, and I judged it to amount to about quantity of twelve or fourteen pounds. Being much surprised by this extraordinary intelligence, I more minutely examined the medicines on the floor, and found them to be chiefly capital articles, and those most generally in demand; and, judging them to be rendered entirely unfit for use, I advised Dr. Scott to let them remain, and by no means meddle with them, as I thought the utmost hazard would attend the using of them. They were accordingly suffered to remain, and no account was taken of them.

"JOHN WARREN.

"COLONY OF MASSACHUSETTS-BAY, WATERTOWN, *s.s.*

"April 3rd, 1776.

"Then John Warren made solemn oath to the truth of the above written deposition Before me

"JAMES OTIS

"Justice of the Peace through the said Colony."

Daniel Scott and Frederick Ridgely also made depositions to the same effect as Dr. Warren's.

General Washington was most keenly solicitous that

the medical department of the army should maintain the highest grade of efficiency. Soon after joining the army engaged in the siege of Boston he made a personal visit of inspection to all the hospitals that had been established in the camp and the neighboring towns. On July 21, 1775, he wrote to Congress,—

"I have made inquiry into the establishment of the hospital and find it in a very unsettled condition. There is no principal director, or any subordination among the surgeons; of consequence, disputes and contention have arisen, and must continue until it is reduced to some system. I could wish it were immediately taken into consideration, as the lives and health of both officers and men so much depend upon due regulation of this department. I have been particularly attentive to the least symptoms of the smallpox; and hitherto we have been so fortunate as to have every person removed so soon as not only to prevent any communication, but alarm or apprehension it might give in the camp. We shall continue the utmost vigilance against this most dangerous enemy."

Thacher relates the following incident, which well illustrates the anxiety of the people for the welfare of such of their defenders as might be ill or wounded, and also how acutely sensitive the commander-in-chief was upon the same point:

"I am sorry to have occasion to notice in my journal the following occurrence: The body of a soldier has been taken from his grave for the purpose, probably of dissection, and the empty coffin left exposed. This affair occasions considerable excitement among our people; both resentment and grief are manifested; as it seems to impress the idea that a soldier's body is held in no estimation after death. Such a practice, if continued, might be attended with serious consequences, as it affects our soldiers. Much inquiry has been made, but without success, for the discovery of the persons concerned; and the practice in future is strictly prohibited by the commander-in-chief."

Toner²² quotes the following letter written by Washington to Congress, in which he expresses his views on

²² Medical Men of the Revolution.

the surgeons of the army. It is dated September 24, 1776.

"No less attention should be paid to the choice of surgeons than other officers of the army. They should undergo a regular examination, and if not appointed by the Director-General and surgeons of the hospital, they ought to be subordinate to and governed by his directions.

"The regimental surgeons I am speaking of, many of whom are very great rascals, countenancing the men in sham complaints to exempt them from duty, and often receiving bribes to certify indispositions with a view to procure discharges or furloughs.

"But independent of these practices, while they are considered as unconnected with the general hospital, there will be nothing but continual complaints of each other—the director of the hospital charging them with enormity in their drafts for the sick, and they him for denying such things as are necessary. In short there is a constant bickering among them which tends greatly to the injury of the sick, and will always subsist till the regimental surgeons are made to look up to the Director-General of the hospital as a superior. Whether this is the case in regular armies or not, I cannot undertake to say; but certain I am, there is a necessity for it in this, or the sick will suffer. The regimental surgeons are aiming, I am persuaded, to break up the General Hospital, and have in numberless instances drawn for medicines, stores, etc., in the most profuse and extravagant manner for private purposes."

In 1776 Washington was obliged to bring the surgeons up with a round turn, as is shown by the following order:

"TO THE REGIMENTAL SURGEONS AND MATES, belonging to the army of his Excellency General Washington, now absent with, or without, the sick of their respective regiments and brigades, on the West side of Hudson River.

"GENTLEMEN:—Few of the surgeons or sick allowed to remove from camp, some time ago, being yet returned, and no reports made of them to me; his Excellency, the Commander-in-Chief, considering his former indulgence to the sick, in permitting them to retire from the camp for the recovery of their health, has been much abused, both by the sick and by the generality of the Surgeons and Mates, under whose care they are allowed this indulgence;—It is his Excellency's orders, therefore, that each of you do forthwith wait upon Dr. Isaac Foster, Esq., at Newark, or Dr. Warren, Esq., at Hacken-

sack, Surgeons in the General Hospital, which ever is nearest at hand; and make a faithful and accurate report of the state of the sick and wounded under your care; and remove those who are fit subjects, immediately to the General Hospital under their care; for which you are to apply to the Quartermaster-General's Department for wagons; and accompany them yourselves.

"Such of you as these gentlemen require to assist them for the present in the General Hospital, and who are willing to attend their sick under their direction, are allowed to do so until further orders; all others are to repair immediately to headquarters, and join their respective regiments; first furnishing me with an accurate register duly certified, of the state of the sick that went out with them, or have been since under their care; specifying the times of their being taken ill, their diseases, and events as to death, recovery, or continuance; whether any of the sick have been allowed to withdraw from under their care, and when?—as all those who are absent without leave must naturally be looked upon as deserters. And the Surgeons and Mates who cannot give a regular and satisfactory account of the faithful discharge of their duty, necessarily subject themselves to an inquiry into their conduct.

"Signed by order and with the approbation of his Excellency, George Washington, Esq., Commander-in-Chief of the American forces, at the camp near the White Plains, November 4, 1776.

"JOHN MORGAN

"Director General of the Hospital and Physician-in-Chief.

"A True Copy; J. FOSTER, or J. WARREN

"Surgeon of the General Hospital."

This order was accompanied by another:

"To DR. JOHN WARREN, ESQ.,—You are desired to get Mr. Delamater to make out ten or a dozen copies of the foregoing circular order to the regimental surgeons, to be forwarded to such as are at Orange County, Tappan, Haverstraw, Paramus, Polrey's, etc., under cover, to be communicated from one to another, until all the sick are brought in. Let my name be put to the letter, and each copy be certified to be a true copy, either by Doctor Foster or you, as underneath. Send Doctor Foster two or three copies, and retain one in your keeping, the rest to be sent on as already mentioned.

"J. M."

Warren²³ says both of the above orders seem to have been enclosed in the following letter to Dr. Warren:

²³ Loc. cit.

"CAMP NEAR WHITE PLAINS, November 7, 1776.

"DEAR SIR,—As the enemy are now retiring before our army toward New York, and a detachment has filed off to harass them I imagine the chief of the army will follow. Of course I am more than ever of opinion that Hackensack will be the chief place, or headquarters, for the General Hospital of our army.

"I hope therefore, that you are going on with spirit in enlarging and accommodating suitable quarters for the patriots, and that for that purpose you apply to, and receive ample assistance from General Greene and Colonel Biddle, Deputy Quartermaster-general, etc.

"You will be pleased to acquaint all the surgeons of regiments and mates, that went from this army and the Jerseys and Orange County; in short, all you meet or hear of, that are from camp, and anywhere on the west side of the North River, under a pretext of taking care of the sick and wounded (except such as you require, and who are willing to assist you in the business of the General Hospital at Hackensack). that it is his Excellency's orders, that they make a report of their sick and wounded to you, that they deliver them up to your care, and return immediately to camp.

"As the General's former indulgence in allowing the sick to retire from camp for the recovery of their health, under certain surgeons or mates of the brigade to which they belonged, has been greatly abused, both by the sick and by the surgeons; insomuch that few of either have returned, although the generality of the sick, it is well known, are sufficiently recovered to do duty; and not one of those surgeons or mates have made any report either to the Commander-in-Chief or to me, by which the state of the sick can be known; they are requested to furnish me with a proper certified register of the state of the sick that went out under their care, a report of the times when any of them deceased, and the recovery of others; likewise whether any of the sick have been allowed to withdraw from under their care. All the soldiers, whether under pretense of sickness or not, who are absent without leave, must naturally be looked upon as deserters, and the surgeons or mates, who cannot give a regular and satisfactory account of the faithful discharge of their trust, necessarily subject themselves to an inquiry into their conduct. I shall inclose to you a circular letter to be communicated to the regimental surgeons and mates, and directions how to do it, which please to observe.

"I am to desire you to examine into the state of the sick who offer to you, and have been long ill,—certifying those whom you think will be unfit for any further service during the present campaign, and that have friends to take care of them, and who are

desirous of a discharge,—that I may procure it for them. The enemy are now retreating. I suppose we shall soon follow. I hope, therefore, before it is long, to have it in my power to pay you a visit at Hackensack. Compliments to all friends. Let me have weekly returns, punctually. I remain, dear sir, your most obedient and very humble servant,

“JOHN MORGAN

“To DR. JOHN WARREN, ESQ., Surgeon of the General Hospital at Hackensack.”

Toner²⁴ printed a previously unpublished letter from Washington to General Smallwood, which shows the former's desire that full justice should be done to the surgeons in the disposition of goods captured from the enemy. A British brig, the “Symetry,” had been captured by the forces under General Smallwood while the vessel was in the Delaware River near Wilmington. The letter is self-explanatory.

“HEADQUARTERS, VALLEY FORGE, 13th of Jan. 1778.

“DEAR SIR: Since writing to you this morning on the subject of the prize Brig Symetry, the Regulations of the Field Officers of the Division for conducting the Sale and disposing of the cargo was laid before me with a letter from the Regimental Surgeons and Mates to Doctr. Cochran. These Gentlemen feel themselves so much hurt by the discrimination made by these Regulations between them and the officers of the division that they have sent in their Resignations.

“As the common Guardian of the Rights of every Man in this Army I am constrained to interfere in this matter and to say that by these regulations a manifest injury is intended not only to the Gentlemen in the medical line, but to the whole Staff, who, supposing the prize should be adjudged the sole property of the Captors (a matter in my opinion not easily to be reconciled on principles of equity and Reason), have as good a right to become purchasers in the first instance and to all other privileges, as any Officers in the Division.

“For these Reasons therefore I desire that you will not proceed to a Sale or distribution of any of the Articles, except the Vessel,

²⁴ Medical Men of the Revolution, p. 65.

till you have my further directions, and that you will as early as possible transmit me an inventory of the Baggage and Stores.

"The letter to Congress is nevertheless to go on, and you will please to forward it by the first conveyance.

"I am, Dear Sir,

"Yr. most obt. Servt.,

(Signed) "G. WASHINGTON.

"GENERAL SMALLWOOD"

In this connection Toner quotes from Sparks's "Life and Writings of Washington" an anecdote concerning a graceful act of General Washington's to an English army surgeon. It appears that when the "Symetry" was seized there were in her cargo a number of medical books belonging to Dr. Boyes, of the British army. This gentleman wrote to General Washington requesting the return of the books. On January 22, 1778, Washington wrote to General Smallwood as follows:

"A few days ago, I received a very polite letter from Doctor Boyes, Surgeon of the 15th regiment, British, requesting me to return him some valuable medical manuscripts, taken in the brig Symetry. He says, they are packed in a neat kind of a portable library, and consist of Dr. Cullen's lectures on the practice of med., thirty-nine or forty vols; Cullen's lectures on the Institutes of Med., eighteen vols; Anatomical lectures, eight vols., and Dr. Black on Chemistry, nine vols; the whole in octavo. If they can be found, I beg that they may be sent up to me, that I may return them to the Doctor. I have no other view in doing this, than that of showing our enemies we do not war against the Sciences."

The surgeons of the Continental army seem to have been frequently the victims of slights and insults when military matters were being dealt with by Congress.

In 1779 Congress passed a resolution that all line officers of the army who should remain in the service until the end of the war should receive half-pay for the rest of their lives, that the deficiency in their pay due to depreciation of the Continental currency should be made up, and that a bounty of land should be given to them.

No provision was made as regarded officers of the medical department, and they were very justly angered by what they regarded as an unjust discrimination. The surgeons of the Eastern Department took vigorous measures. Some of the Massachusetts surgeons put their heads together and drew up the following paper.²⁵

"We, the subscribers, officers of the Medical Department in the army of the United States, do hereby mutually engage on honor, each to one another, that we do join with the other members of that department, in a petition to Congress which we have subscribed, bearing date October 5, 1779, the purport of which is to call the attention of Congress to our affairs, and require that in a limited time they shall come to some definite resolution thereon; and we do mutually and severally engage to one another, that unless the terms of the petition which we have subscribed are complied with by Congress before the first day of January next (1780), we will, on that day, resign our several appointments in said medical department, and will not again serve or do any part of the duty of that department, on any consideration or pretense whatever, until Congress shall have paid a satisfactory attention to said petition, by declaring explicitly what shall be the arrangement of that department, and what shall thereafter be the emolument and recompense to be granted and allowed to the several officers thereof, and until such definite resolution of Congress be made public.

"In witness of which engagement, we have hereto set our names."

Dr. Edward Warren says this remarkable document is in the handwriting of Dr. Eustis, and was signed by W. Browne and D. Eustis. He attributes the credit of its suppression to the councils of Dr. John Warren. The petition referred to was submitted to Congress, but failed to produce any result. The reply to it was directed to Mr. Thomas Carnes, and was as follows:

"SIR,—Your letter by Dr. Eustis was safely delivered to me with the inclosures. I presented your petition to Congress; and am sorry to inform you that they have taken no order thereon. Several

²⁵ Edward Warren's "Life of John Warren."

gentlemen gave it as their opinion that your application should have been made to the State of Massachusetts. I moved to have it referred to the Council of said State; but it was thought unnecessary, as you would be informed without a particular reference to Congress. Indeed I think it not likely that they will take any order respecting the same.

"I am sorry for your misfortune, and that I have not been able to afford you any relief. I am your most obedient servant

"S. HOLTON."

Dr. Warren then drew up for his fellow-surgeons and himself the following petition:

"TO THE HONORABLE COUNCIL AND THE HOUSE OF REPRESENTATIVES
OF THE STATE OF MASSACHUSETTS-BAY, NEW ENGLAND, IN
GENERAL COURT ASSEMBLED:—

"The petition and remonstrance of the officers on the Staff belonging to the State, and employed in the several departments thereof, in behalf of themselves and those serving under them, humbly sheweth:—

"That your petitioners did in the last session of your Honorable Court, prefer a petition setting forth the many hardships and inconveniences under which they labored from the most enormous depreciation of the currency, and the consequent diminution of their pay granted them for their public services; from all which grievances they humbly requested relief, and prayed to be admitted to all the benefits and advantages so justly and so wisely allowed to the officers of the line; but to our inexpressible mortification did we learn that after an almost unanimous resolve had passed the House in our favor, the Honorable Board, for want of a conviction of the reasonableness of our petition, thought fit to reject it with their non-concurrence.

"Nothing, gentlemen, but a thorough consciousness of the justice of their claim, and the fullest confidence which they repose in the candor of the two houses, as well as their approved disposition to distribute the most equal justice through every branch of public administration, could have induced your petitioners again to have called your attention to their most intollerable sufferings, and to distresses which it is in the power of your Honors only to remove. Permit us, gentlemen, humbly to represent:—

"That from the depreciation of the money, your petitioners are as great, if not much greater sufferers than the officers, of the line. For the support of this position your Honors' own experience, in this town especially, of the enormous prices of the necessaries of

life, is a sufficient testimony, and the necessary expenses of living attending the Staff in this State, are most incontestably much greater than those of the line in Camp.

"Secondly, that being stationed out of Camp, and considered as inhabitants of their places of abode, your petitioners are subjected to taxation of personal estate and faculty, which alone is sufficient to swallow up nearly the whole of our present pay, and from which the line are exempt.

"Thirdly, that the allowance made for their subsistence, has not generally been nine tenths so much as the officers of the line.

"Fourthly, your petitioners would observe, that as their whole time is employed in the duties of their respective departments, and their concerns are allowedly more extensive and perplexing than those of the line, the nature of their services richly entitle them to an adequate compensation.

"But, Fifthly, to make use of an argument which your petitioners are persuaded will weigh more in the minds of your Honors, than every other reason here offered, permit them to observe that the stipulation upon which they entered the service, and have hitherto continued in it, upon the principle of equity, demands some consideration for the depreciation of the currency by which we have been so great sufferers; and we need but hint to your Honors, that in the eye of justice the laborer is equally deprived of his hire, whether the contract by which his reward stipulated be infringed by withholding the nominal sum, or by paying it at a diminished value. He is in both cases equally deprived of a real compensation for his labor, and must in proportion thereto be considered as imposed upon.

"Your petitioners would, moreover, in justice to themselves observe, notwithstanding the temptations of gain on one side, and the threats of poverty and distress to their families on the other, they trust no instance can be adduced of fraud or neglect by the Staff in this State. No superior advantages sufficient by any means to compensate for their inconveniences, do the Staff of this State enjoy from the places of their stations. As to risk of life, some of them have been, and some still are more exposed than if in the camp or in the field; and to the others, life itself is not worth possessing under their present hardships.

"Your petitioners, confiding in the wisdom and integrity of your Honors, and the manifest injustice of their being made the only sufferers from depreciation in the whole army, nay, indeed they may almost say in the whole community, doubted not but that your Honors would be induced to put them upon the same establishment with the line, or grant such other relief as your Honors shall decide."

The Massachusetts authorities lent a favorable ear to this petition, and Congress ultimately placed the surgeons on an equal footing with the line officers in the important matters of pay, pensions, and bounties.

Not much contemporary literature concerning the medical affairs of the Revolutionary army was written, but on that account the little that remains to us is doubly interesting.

In the *Pennsylvania Magazine of History and Biography* for October, 1897, was published parts of the Diary kept by Dr. Albigece Waldo during the winter of 1777-1778. It was printed from the manuscript contributed by Mr. Amos Perry, with notes by the editor of the *Magazine*. It goes into such interesting details as to the daily life and interests of the army surgeon of those days that I have made copious abstracts from it.

Albigece Waldo was born February 27, 1750, at Pomfret, Connecticut. He received a good common-school education, supplemented by a course of instruction in Latin under the Rev. Aaron Putnam. When but a boy he was apprenticed, according to the usual custom of those days, to Dr. John Spaulding, of Canterbury, Connecticut, to be educated as a physician. When the Revolution began he at once joined the Continental army, first serving as a clerk in Captain Samuel McClelland's Woodstock company. On the 6th of July, 1775, he received his commission as surgeon's mate of the Eighth Connecticut Regiment, Colonel Jedidiah Huntington, but in September of the same year was obliged to resign owing to ill-health. The Connecticut Committee of War, on December 14, 1776, commissioned him as chief surgeon of the armed ship "Oliver Cromwell." January 1, 1777, he was commissioned surgeon of the First Connecticut Infantry Regiment of the Line, and served as such while

the regiment was under the command of Lieutenant-Colonel Samuel Prentice and Colonel Josiah Starr, and attached to Huntington's brigade of McDougall's division. In September, 1777, this regiment joined the army in Pennsylvania, and was in camp at Valley Forge and participated in the battle of Germantown, where it suffered severely. While in camp at Valley Forge the army underwent a general inoculation for the smallpox, and Dr. Waldo was very active in the work. Here he kept a most entertaining journal of his camp-life, and shows us vivid pictures of the fearful sufferings of the officers and men.

Thus, December 21, 1777, he writes,—

"Preparations made for hutts. Provisions scarce. Mr Ellis went homeward—sent a Letter to my Wife. Heartily wish myself at home, my Skin & eyes are almost spoil'd with continual smoke. A general cry thro' the Camp this Evening among the Soldiers, 'No Meat! No Meat!'—the Distant vales Echo'd back the melancholly sound—'No Meat! No Meat!' Immitating the noise of Crows & Owls, also made a part of the confused Musick. What have you for your Dinners Boys? 'Nothing but Fire, Cake, & Water, Sir.' At night, Gentlemen the Supper is ready. 'What is your Supper, Lads? 'Fire, Cake, & Water, Sir.'

"Very poor beef has been drawn in our Camp the greater part of this season.

"December 22nd.—Lay excessive Cold & uncomfortable last Night—my eyes started out from their Orbits like a Rabbit's eyes, occasion'd by a great Cold & Smoke.

"What have you got for Breakfast, Lads?

"'Fire, Cake, & Water, Sir.' The Lord send that our Commissary of Purchases may live on Fire, Cake, & Water, 'till their gluttred Gutts are turned to Pasteboard.

"Our Division are under Marching Orders this morning. I am ashamed to say it, but I am tempted to steal Fowls if I could find them, or even a whole Hog, for I feel as if I could eat one. But the Impoverish'd Country about us affords but little matter to employ a Thief, or keep a Clever Fellow in good humour."

On Christmas Day, 1777, the following is his entry:

"We are still in Tents—when we ought to be in huts—the poor Sick, suffer much in Tents this cold Weather. But we now treat them differently from they used to be at home, under the inspection of Old Women and Doct. Bolus Linctus. We give them Mutton & Grogg and a Capital Medicine once in a while, to start the Disease from its foundation at once. We avoid Piddling Pills, Powders, Bolus's Linctus's Cordials and all such insignificate matters whose powers are only render'd important by causing the Patient to vomit up his money instead of his disease. But very few of the sick Men Die."

In a foot-note the editor of the *Pennsylvania Magazine of History and Biography* states that at this time there were two thousand eight hundred and ninety-eight men in the camp reported by the surgeons as unfit for duty.

During the winter there was much grumbling among the troops and in Congress at Washington's remaining in camp at Valley Forge and not making any attempt to bring the enemy to a battle. Dr. Waldo speaks of these attacks on his commander in the strongest terms of censure, and praises highly the wisdom and prudence which would not chance the success of the Revolution on a rash conflict with a superiorly equipped enemy, but waited with patience an opportunity to take the British at a disadvantage.

He plaintively records the hardships of a man who persisted in doing his duty and standing by his country in its hour of peril. He was of a most domestic disposition, and his journal continually refers to the charms of his fireside and how much his wife desired his return to his home. On December 28, 1777, he writes,—

"When the Officer has been fatiguing thro' wet & cold and returns to his tent where he finds a letter directed to him from his Wife, fill'd with the most heart aching tender Complaints, a Woman is capable of writing—Acquainting him with the incredible difficulty with which she procures a little Bread for herself & Children—and finally concluding with expressions bordering on despair, of procuring

a sufficiency of food to keep soul & Body together through the Winter — that her money is of very little consequence to her — that she begs of him to consider that Charity begins at home — and not to suffer his family to perish with want, in the midst of plenty. When such, I say — is the tidings they constantly hear from their families — What man is there — who has the least regard for his family — whose soul would not shrink within him."

We get occasional glimpses of how they made the time pass in the camp. December 31, 1777, he writes,—

"Adjutant Selden learn's me how to Darn Stockings—to make them look like knit work."

At this time the British prisons in Philadelphia were crowded with American prisoners, whose sufferings appealed to the sensibilities of Dr. Waldo in the midst of his own. December 18, 1777, he writes,—

"Our brethren who are unfortunately Prisoners in Philadelphia meet with the most savage and inhumane treatments that Barbarians are Capable of inflicting. Our Enemies do not knock them in the head or burn them with torches to death, or flee them alive, or gradually dismember them till they die, which is customary among Savages & Barbarians. No, they are worse by far. They suffer them to starve, to linger out their lives in extreem hunger. One of these poor unhappy men, drove to the last extreem by the rage of hunger, eat his own fingers up to the first joint from the hand, before he died. Others eat the Clay, the Lime, the Stones of the Prison Walls. Several who died in the Yard had pieces of Bark, Wood, Clay, & Stones in their mouths, which the ravings of hunger had caused them to take for food in the last Agonies of Life! 'These are thy mercies, O Britain!'"

These stories of cruelty have been substantiated from many different sources, and the brutality of Cunningham, the provost-marshal, made his name a byword among the Americans.

However, Dr. Waldo determined, if possible, to obtain a furlough and visit his home. He procured a recommendation for one from General Huntington. On applying with it to Dr. Cochran, the latter said,—

"I am willing to oblige every Gentlemen of the Faculty, but some of the Boston Surgeons have by taking an underhand method of getting furlows, occasion'd a Complaint to be lodg'd with his Excellency, who has positively forbid my giving any furlows at present. We shall soon have regimental Hospitals erected—and general Ones to receive the super-abundant Sick from them; if you will tarry till such regulations are made—you will have an honourable furlow, and even now—I will, if you desire it—recommend you to his Excellency for one—but desire you would stay a little while longer—and in the meantime recommend to me some young Surgeon for a Regiment, and I will immediately appoint him to a chief Surgeoncy from your recommendation—I will remember the rascals who have us'd me ill."

"I concluded to stay—and immediately set about fixing accommodation for the Sick."

January 5, 1778, he says,—

"Apply'd for a Furlow, Surgn. Gen'l not at home—come back mumping & Sulkey."

"January 6th. Apply'd again—was deny'd by reason of Inoculations being set on foot—and because the Boston Surgeons had too many of them gone—one of whom is to be broke for his lying & deceiving in order to get a furlow—and I wish his cursed tongue was pull'd out, for thus giving an example of scandal to the New England Surgeons, tho' the Connectt. Ones are well enough respected at present."

But at last his furlough arrives and he starts home.

"January 9th. Unexpectedly got a Furlow. Set out for home. The very worst of Riding—Mud & Mire. We had gone thro' Inoculation before this furlow."

On October 1, 1779, he resigned his commission because of ill-health, and then settled down to practise his profession in Windham County, Connecticut. After remaining there for some time he went to Maryland with a view of practising in that State, but he returned to Windham after a year's absence and remained there until his death.

He was especially known for his ability as a surgeon,

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although, of course, he practised general medicine as well as surgery. He was an accomplished musician, and of music and the fine arts, and somewhat of a poet. He delivered a funeral oration at the burial of George Washington. He was active in organizing the medical society of Windham County, which was subsequently merged with the society formed at New Haven to constitute the Connecticut State Medical Society. He was married, and left a small estate in consequence of his poverty. His death occurred January 20, 1794.

Dr. John Morgan's "Vindication" is also well known, a great fund of information concerning the medical department of the Continental army. The book is extremely rare. The College of Physicians of Philadelphia possesses a copy in excellent condition, which formerly belonged to Dr. James Mease, and has his name on the title-page. I have several times in the foregoing paper quoted from Dr. James Tilton's "Economical Observations on Military Hospitals." This pamphlet contained the author's views on the principles that should guide the sanitation of an army and the regulation of its hospital. The work is very practical and full of common sense. He adduces arguments derived from his own personal experience as an army surgeon to support the various contentions which he makes.

Another literary contribution which I consider most noteworthy is Benjamin Rush's pamphlet entitled "Directions for Preserving the Health of Soldiers," which was published by order of the Board of War. It is "addressed to the Officers of the Army of the United States," and contains many excellent sanitary rules in a brief but clear form, explaining clearly their reasonableness and pointing out their utility. Many of the points he lays stress on are similar to those emphasized by Tilton. No

one interested in military hygiene could more profitably devote the short time necessary for their perusal than to a careful reading of these two articles. They are as full of meat as a nut, and their rules are just as applicable to-day as they were one hundred years ago.

Dr. John Jones, Professor of Surgery in King's College, New York, published in the year 1775 a book entitled "Plain Concise Practical Remarks on the Treatment of Wounds and Fractures, to which is added a short Appendix on Camp and Military Hospitals, Principally Designed for the use of young Military Surgeons in North America." The appendix consists chiefly of abstracts from the famous book by Sir John Pringle, with various comments by Dr. Jones. This work attained a large sale, and served as the guide to military surgery to most of the surgeons in the American army; there is, however, but little in it for those who desire information on the history of the war.

An interesting contribution to military hygiene is afforded in the "History of a Dysentery in the 22d Regiment of the late Continental Army," by Dr. Ebenezer Beardsley. This little article was published in the first volume of transactions ever issued by a medical society in this country,—namely, the "Proceedings of the New Haven County Medical Society for 1788." He details how dysentery developed as the result of putting the regiment into crowded unsanitary barracks, and how the epidemic was checked by moving it into more commodious quarters.

CHAPTER VII.

THE EARLIEST HOSPITALS.

The Pennsylvania Hospital.¹

THE oldest institution intended solely for the care of the sick and wounded within the limits of what is now the United States is the Pennsylvania Hospital in Philadelphia. There are several institutions in Canada and in Mexico which can lay claim to a greater antiquity, and sometimes it is asserted that the Philadelphia Hospital, as the infirmary of the Philadelphia Almshouse has come to be known, is more ancient. But the latter claim is based on a total misapprehension. It is claimed that this institution was founded in 1732, but if one refers to the original documents he will find that the institution founded in that year is always referred to as the "poor-house," and that the only sense in which the term hospital can be applied to it is that it possessed an infirmary for such of the poor as were insane or required more careful medical treatment than could be given them if in the same quarters with the other paupers.

The best proof, however, exists in the petition which

¹ In the subsequent account of the Pennsylvania Hospital practically all the matter is derived from Dr. T. G. Morton's "History of the Pennsylvania Hospital," published in 1895 under the auspices of the Board of Managers and the contributors to the Hospital. Dr. Morton has gathered together every fact relating to the Hospital's history, and has reprinted many of the original documents which bear upon it. So thoroughly has he covered the ground that any one now writing on the subject can only hope to present in a condensed form what Dr. Morton gives in such abundance.

was presented to the Assembly of Pennsylvania on January 23, 1750-51, which led to the founding of the Pennsylvania Hospital:

"TO THE HONOURABLE HOUSE OF REPRESENTATIVES OF THE PROVINCE OF PENNSYLVANIA.

"The Petition of sundry Inhabitants of the said Province Humbly sheweth,

"That with the Number of People, the number of Lunatics or Persons distempered in Mind and deprived of their rational Faculties, hath greatly encreased in this Province.

"That some of them going at large are a Terror to their Neighbors, who are daily apprehensive of the Violences they may commit; And others, are continually wasting their Substance, to the great Injury of themselves and Families, ill disposed Persons wickedly taking Advantage of their unhappy Condition, and drawing them into unreasonable Bargains, &c.

"That few or none of them are so sensible of their Condition, as to submit voluntarily to the Treatment their respective Cases require, and therefore continue in the same deplorable State during their Lives; whereas it has been found, by the Experience of many Years, that above two Thirds of the Mad People received into Bethlehem Hospital, and there treated properly, have been perfectly cured.

"Your Petitioners beg Leave farther to represent, that tho' the good Laws of this Province have made many compassionate and charitable Provisions for the Relief of the Poor, yet something farther seems wanting in Favour of such, whose Poverty is made more miserable by the additional Weight of a grievous Disease, from which they might easily be relieved, if they were not situated at too great a Distance from regular Advice and Assistance; whereby many languish out their Lives, tortur'd perhaps with the Stone, devour'd by the Cancer, deprived of Sight by Cataracts, or gradually decaying by loathsome Distempers; who, if the Expence in the present manner of Nursing and Attending them separately when they come to Town were not so discouraging, might again, by the judicious Assistance of Physic and Surgery, be enabled to taste the Blessing of Health, and be made in a few Weeks, useful Members of the Community, able to provide for themselves and Families.

"The kind Care our Assemblies have heretofore taken for the Relief of sick and distempered Strangers, by providing a Place for their Reception and Accommodation, leaves us no Room to doubt

their showing an equal tender Concern for the Inhabitants. And we hope they will be of Opinion with us, that a small Provincial Hospital, erected and put under proper Regulations, in the Care of Persons to be appointed by this House, or otherwise, as they shall think meet, with Power to receive and apply the charitable Benefactions of good People towards enlarging and supporting the same, and some other Provisions in a Law for the Purposes above mentioned, will be a good Work, acceptable to God and to all the good People they represent.

"We therefore humbly recommend the Premises to their serious consideration.

"A. MORRIS, JUN.	NATH'L ALLEN	S. SHOEMAKER
JONA. EVANS	WM. COLEMAN	SAMUL. SANSOM
JOSEPH SHIPPEN	WM. ATWOOD	SAML. HAZARD
JOHN INGLIS	ANTH. MORRIS	WM. PLUMSTED
REESE MEREDITH	THOS. GRAEME	LUKE MORRIS
JOS. RICHARDSON	JOHN MIFFLIN	STEPHEN ARMITT
JOS. SIMS	GEO. SPOTFORD	SAMUEL RHOADS
EDWARD CATHRALL	JOHN REYNELL	WILL. BRANSON
AMOS STRETTELL	CHAS. NORRIS	ISRAEL PEMBERTON
JOHN ARMITT	WILLIAM GRIFFITTS	JOSHUA CROSBY
JOS'H FISHER	SAMUEL SMITH	WILL. ALLEN."

This petition was composed by Benjamin Franklin, and in his "Brief Account of the Pennsylvania Hospital," in describing how it came to be drawn up, he says,—

"About the end of the year 1750, some Persons, who had frequent Opportunities of observing the distress of such distemper'd Poor as from Time to Time came to Philadelphia, for the Advice and Assistance of the Physicians and Surgeons of that City; how difficult it was for them to procure suitable Lodgings, and other conveniences proper for their respective cases, and how expensive the Providing good and careful Nurses, and other Attendants, for want thereof, many must suffer greatly, and some probably perish, that might otherwise have been restored to Health and Comfort, and become useful to themselves, their Families, and the Publick, for many years after; and considering moreover, that even the poor inhabitants of this city, tho' they had homes, yet were therein but badly accommodated in Sickness, and could not be so well and easily taken Care of in their Separate Habitations, as they might be in one convenient House, under one Inspection, and in the hands

of skilful Practitioners; and several of the Inhabitants of the Province, who unhappily became disordered in their Senses, wandered about, to the terrour of their Neighbours, there being no place (except the House of Correction or Almshouse) in which they might be confined, and subjected to proper treatment for their Recovery, and that House was by no means fitted for such Purposes; did charitably consult together, and confer with their Friends and Acquaintances, on the best means of relieving the Distressed, under those Circumstances; and an Infirmary, or Hospital, being proposed, was so generally approved, that there was reason to expect a considerable Subscription from the Inhabitants of this City, towards the support of such a hospital."

It has been asserted that the Philadelphia Almshouse possessed a medical staff, and that this entitled it to the name of hospital, but the duties of these physicians were not those of a hospital staff, but merely involved their looking after the condition of such paupers as might be ill. The first record of any medical appointment to the Almshouse is found on the 18th of May, 1769, when Drs. Cadwalader Evans and Thomas Bond were "re-elected," at a salary of fifty pounds a year, out of which they were required to furnish such medicines to the inmates as might be needed.

But the most conclusive proof is to be found in the following narrative, which I give *verbatim* from Morton's "History of the Pennsylvania Hospital." To my mind it settles the question beyond cavil that the Philadelphia Almshouse was not, properly speaking, at that time of its existence a hospital, and consequently the Pennsylvania Hospital is justly entitled to be termed the oldest hospital in the United States.

"At an early date, July 22, 1781, the Managers of the Philadelphia City Almshouse and House of Employment requested 'that their sick Paupers may be occasionally admitted into the Hospital as pay patients at the rate of a Spanish mill'd dollar per week.' The Hospital's Managers agreed at the rate of a dollar and one-third said specie, and subsequently it was agreed to receive them for ten

shillings per week. On May 28, 1787, the rate was reduced to eight shillings and four pence; the Almshouse being at this time indebted to the Hospital £648. It was then requested that the rate of board be reduced, which, being considered by the Hospital Managers, they declined to make any alteration for the present in the price or terms of admission. On December 7, 1789, it was found that on 'June 1st last the Almshouse was in debt to the Hospital, for maintenance of their sick £945, 10s., which being placed in Attorney's hands for collection, a trial was obtained on February 12, 1791, when the Almshouse Managers, finding the evidence submitted proved they had contracted to pay at the rates and prices debited to them, admitted the equity of the account and consented that a verdict should be given for £1014 due February 24, 1790.' The point at issue was the objection of the Almshouse to the legality of the Hospital charging for the board of patients who were residents of Pennsylvania, alleging that the hospital funds were exclusively intended for that description of people, and that the Hospital had no right to take foreigners on charity, or the inhabitants of other States. The matter was fully argued before the Court, but not finally decided on, the Court being adjourned to the 3d of the following March. 'The managers had reason to believe it would be determined liberally in their favor as they have a right to consider all persons meeting with casualties in the Roads or Streets, or perishing with sickness in the State, as the poor of Pennsylvania without exception; but if they are immediately sent from the neighboring State for the express purpose of being supported in the hospital they ought not to be admitted.'

"On April 20, 1799, the Managers informed the Almshouse authorities they had room for six patients; if they had any diseased persons in their House, whom the physicians of the Hospital should think proper subjects, they would willingly receive them without pay. The Almshouse Managers acceded to the proposition with delight, in the hope that their maniacs would be selected, which was not the proposition of the Hospital. The matter led to correspondence and several conferences; the Hospital Committee fully explained to the Almshouse Managers the reason why they could not admit their poor patients in the manner and upon the unreasonable terms which they had proposed. It was finally agreed that the Managers of the Hospital should consider, and make known, the lowest rate at which the sick patients of the Almshouse would be received into the Pennsylvania Hospital. On December 19, 1801, they submitted the following: '1st, The Hospital will take from the managers of the Almshouse all such pay cases as the hospital physicians consider as proper cases to be received therein at 225

cents per week. 2d, That all their pay patients who are now in the house shall be charged at the same price. 3d, the accounts shall be settled at the end of every 3 months. 4, If the foregoing proposals are not agreed to, the terms of admission shall not be altered from three dollars a week until further order is taken thereon.'

"On December 28, 1801, the Managers of the Almshouse made answer that they could not agree to the proposal, but it was probable that a conference would remove the impediments. At a conference, held January 12, 1802, the objections made to the proposals of the Hospital Managers were considered and removed with exception of the first, for which the Almshouse Committee prepared the following substitute: 'Resolved that the Managers of the Pennsylvania Hospital will take from the Managers of the Almshouse all their lunatics and such other pay patients as may be considered curable cases and proper for admission into the said Hospital (agreeable to its Rules) at 225 cents per week for each of them for one year.'

"The Almshouse Committee also proposed to the Managers of the Pennsylvania Hospital, 'that they shall cause to be attended all their Patients who may be in the Almshouse, by the Hospital Physicians, gratis; and that they shall be supplied with medicines except liquors at the expense of the Hospital.'

"On January 25, 1802, all conference on the subject was terminated by a minute of the Almshouse board, that they 'are of opinion it will not be advisable to remove the sick from this house to the Hospital upon the terms proposed by the Managers of that Institution inasmuch as it will occasion a very great and as we conceive unjustifiable increase of our expenses.' On January 31, 1803, a communication was received from the Almshouse board requesting a conference with the Managers of the Hospital on the admission of Paupers into said Hospital and asking the appointment of a committee of conference. A conference was held Feb. 28, 1803, when the Almshouse Committee submitted the following minute containing the objections of the Guardians of the Poor to the terms of admission for their sick patients, viz.: 'Whereas it has been Customary for the Managers of the Pennsylvania Hospital to admit diseased paupers into their house for cure, provided the Guardians of the Poor will engage to furnish them with Cloathes and pay funeral expenses in case of their death, and *such engagements* involve the Guardians in *unnecessary*, and in case of non-residents perhaps in unjustifiable, Expense and at the same time *swell* the account of the Guardians *while the whole credit* results to the Managers of the Hospital. Resolved that in Future No Guardian sign *Such engagement to the Hospital.*' The Almshouse Committee

was informed of the reasons upon which the rules for the admission of Paupers into the Hospital were founded and the difficulty there would be in procuring an alteration thereof; and that the Guardians could derive little or no benefit from the proposed alterations, inasmuch as clothing and burying their patients at the expense of the Hospital would only lessen the fund that supported their own poor—as they appeared to be convinced with the reasons assigned, the conference adjourned. The Almshouse board rescinded this minute and then adopted the following: 'that in cases where nothing further is required than furnishing Cloaths and defraying funeral Expenses it will be proper for the Guardians to sign the Engagement, due attention being previously paid to the Applicant being a Residenter.'

As Dr. Morton says, this effectually disposes of the claim that what we now know as the Philadelphia Hospital, or Blockley Almshouse, is the oldest hospital in the United States:

"Because it now exists in connection with the Philadelphia Almshouse, it cannot be admitted that it was so from the beginning, or that its organization dates back to the establishment of the first City Almshouse in 1730-31."

Morton traces back the history of the efforts made to establish a hospital in Pennsylvania as far as the year 1709, quoting from the records of Friends' Monthly Meeting at Philadelphia on September 25, 1709, the following:

"Thomas Griffith is ordered to pay to Edward Shippen to the value of Eight Pounds Sterling when there is stock in his hands, towards defraying the charges of negotiating matters in England in relation to the School Charter and one that is endeavoured to be obtained for an Hospital, according to the agreement and concurrence of the Meeting some time past, and was accordingly to send over by Isaac Norris to request of Gov. Penn who was willing to grant the same; but upon advice thought it proper to have the School and Hospital in one which this meeting desires may be moved again by James Logan, who is now going over to England."

Nothing further appears to have been done in the matter for many years, certainly no practical result came of

it until the middle of the century. The credit of originating the efforts which finally caused the foundation of the Pennsylvania Hospital belongs to Dr. Thomas Bond, a man prominent in his profession and in the community. He was born in 1712, and besides his enterprise in founding the Pennsylvania Hospital he took an active part in the establishment of the College of Philadelphia, now the University of Pennsylvania. He was the originator of the Bond splint for the treatment of fractures of the lower end of the radius, and he also invented an instrument for extracting foreign bodies from the œsophagus. It has been asserted that Benjamin Franklin was the founder of the Pennsylvania Hospital, but in his "Autobiography" Franklin magnanimously gives the full credit to Dr. Bond in the following narrative of the way in which he came to be concerned in it:

"In 1751, Dr. Thomas Bond, a particular friend of mine, conceived the idea of establishing a hospital in Philadelphia, (a very beneficent design, which has been ascribed to me, but was originally and truly his,) for the reception and cure of poor sick persons, whether inhabitants of the province, or strangers. He was zealous and active in endeavouring to procure subscriptions for it; but the proposal being a novelty in America, and at first not well understood, he met but with little success. At length he came to me with the compliment, that he found there was no such a thing as carrying a public-spirited project through without me being concerned in it. 'For,' said he, 'I am often asked by those to whom I propose subscribing, *Have you consulted Franklin on this business? And what does he think of it?*' I inquired into the nature and probable utility of the scheme, and receiving from him a very satisfactory explanation, I not only subscribed to it myself, but engaged heartily in the design of procuring subscriptions from others; previous however to the solicitation, I endeavoured to prepare the minds of the people, by writing on the subject in the newspapers, which was my usual custom in such cases, but which Dr. Bond had omitted. The subscriptions afterwards were more free and generous; but beginning to flag, I saw they would be insufficient, without some assistance from the assembly, and there-

fore proposed to petition for it; which was done. The country members did not at first relish the project; they objected that it could only be serviceable to the city, and therefore the citizens alone should be at the expense of it, and they doubted whether the citizens themselves generally approved of it. My allegation on the contrary, that it met with such approbation as to leave no doubt of our being able to raise two thousand pounds by voluntary donations, they considered as a most extravagant supposition, and utterly impossible. On this I formed my plan; and asking leave to bring in a bill for incorporating the contributors according to the prayer of their petition, and granting them a blank sum of money; which leave was obtained chiefly on the consideration, that the house could throw the bill out if they did not like it, I drew it so as to make the important clause a conditional one, viz.: 'And be it enacted by the authority aforesaid, that when the said contributors shall have met and chosen their managers and treasurer, and shall have raised by their contributions a capital stock of two thousand pounds value, (the yearly interest of which is to be applied to the accommodation of the sick poor in the said hospital, and of charge for diet, attendance, advice, and medicine,) and *shall make the same appear to the satisfaction of the speaker of the Assembly for the time being*; that then it shall and may be lawful for the said speaker, and he is hereby required to sign an order on the provincial treasurer, for the payment of two thousand pounds in two yearly payments, to the treasurer of the said hospital, to be applied to the founding, building and furnishing of the same.' This condition carried the bill through; for the members who had opposed the grant, and now conceived they might have the credit of being charitable without the expense, agreed to its passage; and then in soliciting subscriptions among the people; we urged the conditional promise of the law as an additional motive to give, since every man's donation would be doubled; thus the clause worked both ways. The subscriptions accordingly soon exceeded the requisite sum, and we claimed and received the public gift, which enabled us to carry the design into execution. A convenient and handsome building was soon erected, the institution has by constant experience been found useful, and flourishes to this day; and I do not remember any of my political manœuvres, the success of which at the time gave me more pleasure; or, wherein, after thinking of it, I more easily excused myself of having made some use of cunning."

Morton quotes Franklin's account of the way in which the charter was finally obtained:

"On the second reading of the Petition, January 29, 1751, the House gave leave to the Petitioners to bring in a Bill, which was read the First Time on the first of February. For some time it was doubtful whether the Bill would not miscarry, many of the Members not readily conceiving the Necessity or Usefulness of the design; and apprehending moreover, that the Expense of paying Physicians and Surgeons, would eat up the whole of any Fund that could be raised; but three of the members of the Medical Profession, viz: Doctors Lloyd Zachary, Thomas Bond, and Phineas Bond, generously offering to attend the Hospital gratis for three years, and the other Objections being by degrees got over, the Bill, on the seventh of the same Month, passed the House, *Nemine Contradicente*, and on the 11th of May following it received the Governor's approval."

The first president of the Board of Managers was Joshua Crosby, and the first clerk Benjamin Franklin.

The board applied to the Proprietaries, Thomas and Richard Penn, for a grant of land on which to build, and Morton gives a number of interesting letters bearing on this subject which passed between the Managers, the Penns, and Governor Hamilton. It would appear from these that the Penns offered them a lot which was part of some ground which had already been laid apart on the city plan for public purposes, and the offer was coupled with the condition that if the scheme of the Hospital failed in execution the land should revert to the ownership of the Penns. There were some brick-yards and swamps in the immediate neighborhood of the site proposed for the Hospital. The Managers with great wisdom refused this offer, partly because of the unhealthfulness of the proximity of swamps, but chiefly because they were public-spirited enough to see that if they accepted the grant of this land which had already been given to the city, especially when the gift to them was accompanied by the reversionary clause, they would acknowledge the right of the Penns to make grants of



DR. PHINEAS BOND.



DR. LLOYD ZACHARY.

(From Morton's "History of the Pennsylvania Hospital.")

land already definitely devoted to public purposes. Having thus refused to accept the gift of a site on which to build, the Managers rented a house on the south side of Market Street (then High) below Seventh, which had belonged to the lately deceased Judge John Kinsey, and on February 6, 1752, inserted an advertisement in the *Gazette* that the Hospital was ready to receive patients.

In the previous month they had drawn up the following set of rules governing patients:²

"Rules agreed to by the managers of the Pennsylvania Hospital, for the admission and discharge of Patients

"First, That no patients shall be admitted whose cases are judged incurable, lunatics excepted; nor any whose cases do not require the particular conveniences of a Hospital.

"Secondly, that no person, having the small pox, itch, or other infectious distempers, shall be admitted, until there are proper apartments prepared for the reception of such as are afflicted with those diseases; and if any such persons should be inadvertently admitted, they shall forthwith be discharged.

"Thirdly, That women having young children shall not be received, unless their children are taken care of elsewhere, that the Hospital may not be burthened with the maintenance of such children, nor the patients disturbed with their noise.

"Fourthly, That all persons desirous of being admitted into the Hospital (not inhabitants of Philadelphia) must, before they leave their abode, have their cases drawn up in a plain manner, and sent to the managers, together with a certificate from a justice of the peace, and the overseer or overseers of the poor of the township in which they reside, that they have gained a residence in such township, and are unable to pay for medicines and attendance, to which an answer shall speedily be returned, informing them whether and when they may be admitted. All persons employed in drawing up their cases, are desired to be particular in enumerating the symptoms, and to mention the patient's age, sex, and place of abode, with the distance from the city of Philadelphia.

"Fifthly, That all persons who have thus obtained a letter of

² Some Account of the Pennsylvania Hospital; from its First Rise to the Beginning of the Fifth Month, called May, 1754. Philadelphia, 1817.

license to be received into the Hospital, must be there at the time mentioned for their reception, and bring with them that letter, and must likewise deposit in the hands of the treasurer so much money, or give such security as shall be mentioned in their respective letters of license, to indemnify the Hospital either from the expense of burial, in case they die, or to defray the expense of carrying them back to their place of abode, and that they may not become a charge to the city.

"Sixthly, If several persons, not excluded by the preceding exceptions be received, without exceeding the number allowed by the managers to be entertained at one time in the Hospital, the preference will be given, when the cases are equally urgent, first to such as are recommended by one or more of the contributors, members of this corporation, residing in the township to which the poor persons belong; secondly to those who stand first in the list of applications; but if some cases are urgent, and others can admit of delay, those with the most urgent symptoms shall be preferred.

"Seventhly, Notwithstanding such letters of license, if it shall appear by a personal examination of any of the patients, that their cases are misrepresented, and that they are improper subjects of the Hospital, the managers shall have the power of refusing them admission.

"Eighthly, That at least one bed shall be provided for accidents that require immediate relief.

"Ninthly, That if there shall be room in the Hospital to spare, after as many poor patients are accommodated as the interest of the capital stock can support, the managers shall have the liberty of taking in other patients, at such reasonable rates as they can agree for; and the profits arising from boarding and nursing such patients, shall be appropriated to the same uses as the interest-money of the publick stock. Provided that no such person, under pretence of coming to board in the Hospital, shall be admitted, unless, on the first application made on his behalf, a certificate be produced from the overseer or overseers of the poor of the township in which he lives, of his having gained a residence in the said township; and unless sufficient security be given to the managers to indemnify the city and Hospital from all charges and expenses whatsoever, occasioned by his removing hither.

"Tenthly, That those who are taken into the Hospital at a private expense, may employ any physician or surgeons they desire.

"Eleventhly, That all persons who have been admitted into the Hospital, shall be discharged as soon as they are cured, or, after a reasonable time of trial, are judged incurable.

"Twelfthly, That all persons when cured, sign a certificate of their particular cases, and of the benefit they have received in this Hospital, to be either published or otherwise disposed of, as the managers may think proper.

"Thirteenthly, That no patient go out of the Hospital without leave from one of the physicians or surgeons, first signified to the matron. That they do not swear, curse, get drunk, behave rudely or indecently, on pain of expulsion after the first admonition.

"Fourteenthly, That no patient presume to play at cards, dice, or any other game within the Hospital, or to beg any where in the city of Philadelphia, on pain of being discharged for irregularity.

"Fifteenthly, That such patients as are able, shall assist in nursing others, washing and ironing the linen, washing and cleaning the rooms, and such other services as the matron shall require.

"The foregoing rules were

agreed to by a board of managers of the
Pennsylvania Hospital, the twenty-third
day of the first month (January) 1752

"BENJAMIN FRANKLIN, Clerk

"We do approve the foregoing rules

"WILLIAM ALLEN, Chief Justice

ISAAC NORRIS, Speaker of the Assembly.

TENCH FRANCIS, Attorney-General."

On October 23, 1751, "Dr. Lloyd Zachary and Drs. Thomas and Phineas Bond signified their willingness to give their attendance Gratis in taking care of the sick as Physicians and Surgeons for the First three years." The board accepted their offer, and resolved to request "Drs. Graeme, Cadwalader, Moore, and Redman to assist in consultations on extraordinary cases." At the same meeting Morton tells us the following resolution was adopted, but he thinks was never carried into effect:

"*Resolved*, That the Physicians of the Hospital, or such Practitioners as are to perform Operations shall first give demonstration of their Skill and Abilities in Anatomy, Operations, Dressings, and Bandaging before the Managers and such others as the Managers may think fit to join with themselves to assist in judging of the performance of such Practitioners. That this resolve be recommended to the first General Meeting of the Contributors to be

passed into a law as a matter of the highest consequence for the safety of the Poor Patients and the Reputation of the Hospital."

The following regulations, however, were adopted, and apparently faithfully observed:

"Rules to be observed in the choice of the Physicians and Surgeons of the Pennsylvania Hospital, to limit and appoint their number, authority and duty, and to raise a Fund for supplying the said Hospital with Medicines.

"Imprimis, The managers of the said Hospital shall, within ten days after the first meeting in the month called May, yearly, choose six practitioners in physick and surgery, to visit and take care of the patients in the said Hospital, and the other practitioners (who are at this time members of this corporation) shall have the privilege of attending and observing the practice of those chosen for the service of the year.

"Secondly, the practitioners chosen shall give their attendance at such times, and in such manner, and be classed with each other, as shall be concluded and agreed upon by the managers and practitioners.

"Thirdly, Upon extraordinary cases, the practitioners in attendance shall call in two or more of the practitioners chosen for the service of the year, to consult with them.

"Fourthly, In all such cases, which will admit of time for deliberation, all the six practitioners, chosen for the service of the year, shall have timely notice thereof.

"Fifthly, If any practitioner be removed by the managers for neglect of duty, or any other cause, or shall die, in that case the managers shall choose another practitioner (who is a member of this corporation) to supply his place.

"Sixthly, Each apprentice or other student the practitioners shall introduce to see the practice of the Hospital, shall pay one English guinea, or thirty-four shillings, current money, per year, to be laid out in medicines, or such other manner as the managers think most proper.

"Seventhly, No practitioner, during the term for which he is chosen to serve the Hospital, shall act as a manager.

"Eighthly, The practitioners shall keep a fair account (in a book provided for that purpose) of the several patients under their care, of the disorders they labour under, and shall enter in the said book the recipes or prescriptions they make for each of them.

Ninthly, No person shall be received hereafter as a candidate to be employed in the said Hospital, as a physician or surgeon until

he be a member of this corporation, and of the age of twenty seven years, hath served a regular apprenticeship in this city or suburbs, hath studied physick or surgery seven years or more, and hath undergone an examination of six of the practitioners of the Hospital, in the presence of the managers, and is approved of by them; and with respect to strangers, they shall have resided three years or more in this city, and shall be examined and approved of in the manner, and under the restrictions aforesaid.

"Tenthly, These rules shall continue in force two years, and from thence to the time of the next general meeting of the contributors, and no longer.

"The foregoing rules were agreed to at a general meeting of the contributors to the Pennsylvania Hospital, the sixth day of April, 1752, and three times read, and ordered to be engrossed; and at a meeting of the contributors on the thirteenth day of April, 1752, were again read, and, by their order, signed by

"JOSHUA CROSBY, President.

"We do approve of these rules

"WILLIAM ALLEN, Chief Justice.

ISAAC NORRIS, Speaker of the Assembly

TENCH FRANCIS, Attorney General"

On February 10, 1752, four days after the insertion of the advertisement in the *Gazette*, that the Hospital was in condition to receive patients, a meeting of the Managers and the attending and consulting physicians and surgeons was held to consider the first application for admission to the wards. The first patient admitted was Margaret Sherlock, and she was likewise the first patient discharged cured.

The Managers provided the Hospital with large and small spinning-wheels, two pairs of cards, and some wool and flax, "to employ such Persons as may be capable of using the same."

Franklin and Dr. Thomas Bond drew up a suitable

design for a seal for the Hospital. The same design is in use at the present day, but the original seal was destroyed in 1833 and the one now used substituted for it.

In 1754 the Hospital published "Some Account of the Pennsylvania Hospital; from its First Rise to the Beginning of the Fifth Month, called May, 1754," which was written by Benjamin Franklin.

On September 11, 1754, the Managers purchased a lot between Spruce and Pine, Ninth and Eighth Streets, being the entire block with the exception of about one acre on the Spruce Street side, which belonged to the Penns. The price paid was five hundred pounds, and a few years later the Penns donated to them the portion of the block which was their property, and the Managers thus acquired title to the site occupied by the Hospital to the present day.

The Managers then proceeded to consider plans for the erection of a permanent hospital building, and in 1755 the work was begun. It was decided to erect an east wing first, and to have plans so drawn that the centre building and west wing could be added at a later period.

The corner-stone was laid on May 28, 1755, with much ceremony. The Managers and their invited guests assembled at the building then being used for hospital purposes at Seventh and High (now Market) Streets and marched in a body to the new grounds. Among those present was John Key, who was the first person born in Pennsylvania after the landing of William Penn in 1682. The public schools of the city were closed. The stone was laid with Masonic rites. It has in recent years been exposed, and can now be seen and the inscription easily read. This inscription was written by Benjamin Franklin, and is as follows:

IN THE YEAR OF CHRIST
 MDCCLV
 GEORGE THE SECOND HAPPILY REIGNING
 (FOR HE SOUGHT THE HAPPINESS OF HIS PEOPLE)
 PHILADELPHIA FLOURISHING
 (FOR ITS INHABITANTS WERE PUBLICK SPIRITED)
 THIS BUILDING
 BY THE BOUNTY OF THE GOVERNMENT,
 AND OF MANY PRIVATE PERSONS,
 WAS PIOUSLY FOUNDED
 FOR THE RELIEF OF THE SICK AND MISERABLE;
 MAY THE GOD OF MERCIES
 BLESS THE UNDERTAKING

In this year, Joshua Crosby having died, Benjamin Franklin was chosen President of the Board of Managers.

On May 6, 1756, the Contributors held their first annual meeting in the new Hospital, in which place they have been held, with few exceptions ever since. The Managers met for organization immediately after the Contributors' meeting, and adopted the following rule:

"Resolved to meet at the Hospital on the last Monday in every month at 5 o'clock in the afternoon till the end of the Month called September, and at 3 o'clock during the remainder of the year; each member is to pay 2s. 6d. for Total absence and one shilling for not coming on time, and for each hour's absence after the fixed time six pence per hour, all of which fines to be disposed of as the majority may direct; the Town Clock or when that does not strike, the watch of the oldest person present to be the standard to determine the time."

Dr. Morton reproduces several pages from the account book showing the indebtedness in fines of Thomas Crosby and Benjamin Franklin for absence or tardiness at meetings subsequent to the passage of this resolution.

On December 17, 1756, the patients in the High Street building were all brought over into the Hospital, which was then ready for such occupancy. The centre building and west wing of the Hospital were added to the origi-

nal east wing in subsequent years, as first planned. The west wing was finished in 1796.

Dr. Morton points out as noteworthy the special reference in all the petitions for the founding of the Hospital, appeals for money for it, and in its charter and laws, to the treatment of the insane. Many of the patients in the first building on High Street were lunatics, and when the Hospital was erected special provision was made for them. Their apartments were on the ground-floor of the east wing, and a gallery was made in which they could exercise themselves. In the temporary hospital the insane had had their quarters in cells in a damp cellar, without any heating or ventilating apparatus, so that the change was greatly for their benefit. But even in the new Hospital there was one annoyance which became so great that it had to be stopped. The Hospital stood in an open lot, without fence or wall, and consequently people used to gather at the windows of the patients' cells and stare at them and sometimes tease them. On April 8, 1760, it was resolved,—

"That a suitable Pallisade Fence, either of Iron, or Wood, the Iron being preferr'd, should be erected in Order to prevent the Disturbance which is given to the Lunatics confin'd in the Cells by the great Numbers of people who frequently resort and converse with them. It was also agreed to hire Two Constables, or other proper Persons to attend at such Times as are necessary to prevent this Inconvenience untill ye Fence is erected."

The fence was built, but the annoyance caused by people who wished to see the insane continued, for, on May 10, 1762, Morton says, it was noted,—

"The great crowds that invade the Hospital give trouble and create so much disturbance, that Samuel Rhoades and Jacob Levis are directed to employ a workman to make a suitable hatch door and get an inscription thereon notifying that such 'persons who

come out of curiosity to visit the house should pay a sum of money, A Groat at least, for admittance."

Again, on April 27, 1767, it was found necessary to take up this subject:

"Orders were received that the Hatch door be kept carefully shut and that no Person be admitted into the House without paying the gratuity of Four Pence formerly agreed upon, and that care be taken to prevent the Throng of people who are led by Curiosity to frequent the House on the first day of the week, to the great disturbance of the Patients."

Morton gives several extracts from the minutes at various times subsequent to this bearing upon the same point. In 1791 the physicians represented to the Managers the great injury resulting to the insane patients from the many visitors allowed to enter their apartments, and as a result the Managers resolved,—

"That no Person whatever should be hereafter allowed to enter the Grounds, or Cells inclosed for their Accommodation, unless introduced or allowed by one of the Managers, Physicians or by the Steward, to which resolution the Cell-Keeper was strictly to Attend, and to keep the Gates and Wards locked in future, to prevent all Intruders who might attempt to enter therein, without such permission being first obtained."

I have copied the following table from among those for a number of years, contained in "Some Account of the Pennsylvania Hospital; from its First Rise to the Beginning of the Fifth Month, called May, 1754." It is interesting as illustrating the nature of the cases admitted and the terms used in diagnosing them. It will be noticed how large is the proportion of "scorbutick" patients, and of the insane.

DISEASES.	Admitted.	Cured.	Relieved.	Discharged Irregularly.	Died.	Incurable.	Remain.
Agues	2	2	0	0	0	0	0
Annerism [<i>sic</i>]	1	0	0	0	1	0	0
Asthma	1	0	1	0	0	0	0
Cancers	1	0	0	0	0	1	0
Consumption	1	0	0	0	1	0	0
Contusion	1	1	0	0	0	0	0
Cough, long standing	2	2	0	0	0	0	0
Dropsy	10	3	0	1	3	0	2
Empyema	1	1	0	0	0	0	0
Eyes disordered	1	1	0	0	0	0	0
Fevers	2	2	0	0	0	0	0
Fistulas	2	1	1	0	0	0	0
Flux, long standing	5	3	0	0	1	0	1
Fracture	1	1	0	0	0	0	0
Hair-lip	1	1	0	0	0	0	0
Hectick fevers	2	1	0	0	1	0	0
Hypochondriac melancholy	1	0	1	0	0	0	0
Lunacy	11	3	0	0	0	3	5
Palsy	1	0	1	0	0	0	0
Rupture	1	1	0	0	0	0	0
Rheumatism and sciatica	5	3	1	1	0	0	0
Scorbutick and scrophulous ulcers	22	16	0	0	1	0	5
Suppression of urine	1	1	0	0	0	0	0
Vertigo	1	1	0	0	0	0	0
Uterine disorder	1	0	0	0	1	0	0
Weakness, habitual	1	1	0	0	0	0	0
Wounded	2	1	0	0	0	0	1
White swelling	1	1	0	0	0	0	0
Ulcers with carious bones	7	0	1	0	0	0	6
In all	89	47	6	2	9	4	20

The above table is for the time between the 27th of April, 1754, and the 26th of April, 1755.

Dr. Morton's History contains much concerning the management of the insane in those days and relates some particular cases of interest. Stephen Girard's wife was an insane patient of the Hospital for some years. She was admitted December 31, 1790, the Hospital to receive from Girard twenty-five shillings a week for her care. The next month the Managers learning that she was

pregnant asked Girard to remove her, but he prevailed on them to let her remain. On March 28, 1791, there is the following minute :

"On the 3rd Instant, Mary the Wife of Stephen Girard was delivered by Dr. Hutchinson and William Gardner of a child, in the presence of Edward Cutbush and others, Mary, which on the 7th instant was put out to Nurse with John Hatcher's Wife, at 10s Per Week."

The child died on August 26, 1791, and Morton furnishes us with a transcript of the steward's bill :

"August 27th, 1791

"Mr. Joseph Henzey of the Pennsylvania Hospital, Dr.

To Joseph Dolby for ye Burial of Mary Girard's Child	
To Gownd	£2. 5. 0
To Minister's Attendance	0. 6. 0
To Clark's do	0. 4. 6
To Bell	0. 5. 0
To Grave	0. 7. 6
To Invitations	0. 10. 0
	<hr/>
	£3. 18. 0

Mrs. Girard died in the Hospital on September 13, 1815, and was buried in the grounds of the institution. Her husband gave the Hospital two thousand dollars on October 30, 1815, and in his will left it thirty thousand dollars.

Morton tells the story of one Thomas Perrine, an insane sailor, who was admitted in March, 1765, and died in 1774. At first he was confined in the cells on the ground-floor, but he was a very troublesome patient and finally escaped the cell-keeper and made his way to the cupola on the east wing, from whence it was impossible to remove him. Finally the Managers had bedding placed there for him, and he remained in his queer refuge all the remaining years of his life, finally dying in it. The record says,—

"He never left these cramped quarters for any purpose; he was also noted for his long nails, matted beard and hair and for his insensibility to cold, since he never, in the coldest weather of nine winters, came near to a fire."

There was a total absence of method in the admittance of insane patients. Dr. Morton, whose long experience as a member of the Pennsylvania State Board of Lunacy has rendered him an acknowledged authority on all matters relating to the commitment of the insane to asylums or hospitals, informs us that insane patients were committed to the Hospital by a few words scribbled on any kind of paper that might be at hand, without regard to any regular form, and signed by any Manager or physician whose signature was obtainable. He quotes several such commitments. Slaves were frequently committed to the Hospital by their masters, the latter paying the board; thus:

"July 20, 1757. Admitted Cato, a black slave, on 18th inst, a Lunatick belonging to Oswald Peel, at 10s. Per Week."

On March 7, 1752, the following bill was presented against the Hospital:

"John Cresson, blacksmith, against ye hospital, 1 pair of handcuffs, 2 legg locks, 2 large rings and 2 large staples, 5 links and 2 large rings and 2 swifells for legg chains."

Dr. Morton gives copious extracts from a note-book kept by Samuel Coates, a Manager of the Hospital from 1785 to 1825, in which he records his observations upon the insane patients in the Hospital and numerous anecdotes concerning them.

I shall copy but one of them. It is an interesting commentary on the manners of our forefathers, as well as a sample of the records kept by the worthy old Manager of things he deemed of interest.

"Polly—I believe it is forty years since this beautiful Girl first was brought to the Pennsylvania Hospital. Her insanity was attributed to disappointment in Love.

"One Night She was chained to the floor and to her Ankle in bed; in this situation with a saw or a file, She separated the link next to her skin. This Secret she kept to herself, and continued in bed, holding in her hands the End of her chains.

"In the morning Dr. Hutchinson, passing her Cell door, She called to him & requested a favour, that he would shut the Window, for She was chilly. The Doctor immediately mounted a chair & drew the Sash down; but turning his Back instead of his face to the patient, She slyly slipt out of bed, &, before he could dismount from his high Station, She was out, & bolting him in, escaped; there he was detained the best part of an hour, calling on Dick, Tom or Harry, any one he cou'd see to deliver him from Prison.

"The hue and Cry for Polly was soon made; at length she was found, wading up to her knees in Mud & water, thro' the mouth of the Culvert or common Sewer, into the Dock, nearly opposite to Joshua Gilpin's house. Where She first entered into this Subterraneous passage, I do not remember, tho' I recollect her returning in high Glee to her old quarters, Exulting in the trick she had played upon the doctor.

"The apparently mild and attractive Charms of this beautiful Woman were apt to lure young & old into long & familiar Conversation with her. She was often treacherous, tho' she seemed so Agreeable—The following is an Instance.

"One day, in the line of his duty, Dr. Parke paid her a Visit—She was then rather High—The Doctor view'd her with Interest & continued talking with her some time, during this interview, which seem'd on both sides agreeable, I have no Doubt but Polly was preparing to finish; for, having her hand in her pocket, while he was speaking to her, she suddenly thrust a long knife at his body which She pulled out unobserved & pierced thro' his Coat and Jackett; and entering the Wall, it drew from it a triangular plug of Mortar, about an inch in length on every side & even scraped the very brick, leaving the marks of the knife upon it for severall years till the Chasm was filled. The Doctor, I expect will remember this freak, which cost Polly a few ounces of Blood.

"Many Years since, I was walking on the Commons & heard a great Noise. Where it came from I could not tell, but list'ning Attentively, I discovered it was from the blue house, and directing my course there, I found it to be the shouting of a great number of people. They were Assembled to a Bull baiting, which in those days, was a common practice. The Animal appeared to be in a

great rage, tho' much exhausted by the Dogs, before I reached the Scene of Action. Soon after I got there, a Small Mastiff was sett on, which he threw about ten feet high, & he fell to the Ground with his upper Jaw broke & Every tooth Out.

"A short rest was now again given to the Bull, when a presumptuous little Man, to shew what he could do, run towards the Animal, but Returned faster than he went, for the creature took him under his breech & tossed him about 12 feet from the end of the Rope.

"A New pack of dogs being procured to renew the fight, every Eye was turned to the Onset.

"At this moment, Polly scaled the high fence, thro' the Crack of which she saw the battle & pitying the Bull, She pierced unseen thro' the Circle & ran up directly to the Ring; and without Shoes or Stockings; with her Bosom all open; her neck bare And her beautiful Ringlets wildly dangling over her Shoulders—her other Cloathing was her Shift only and a white petty coat; so that she Appear'd more like a Ghost than a human Creature. When she reached the Bull, (tho' previously & almost immediately before, he was in a Rage) She Accosted him thus—'Poor Bully! have they hurt you? they shall not hurt you any more,' & stroking his forehead & his face She repeated 'they shall not, They shall not hurt thee.' This was indeed Wonderful; but the Animal's behavior was not less so, for he no Sooner saw her approaching him, than he dropt his Head & became Mild & gentle, As tho' he knew She was sent to deliver him.

"The whole Concourse of Spectators saw it, and were Struck with Astonishment—not one of whom dared to enter into the Ring to save her; but stood trembling for Polly's Life, afraid to stir a Step and even to follow her on the Return, thro' the Midst of the dumb Struck Company, like an Arrow from the Bow, Over the high fence again to the Hospital from which She eloped."

Benjamin Rush not only manifested the most active zeal in the performance of his medical duties to the Hospital, but his benevolence led him to exert himself for the amelioration of the condition of the insane, and there are interesting records left of what he did in this direction.

On November 11, 1789, he wrote to the Board of Managers,—

"GENTLEMEN :—Under the conviction that the patients afflicted by Madness, should be the first objects of the care of a physician of the Pennsylvania Hospital, I have attempted to relieve them, but I am Sorry to add that my attempts which at first promised some Improvement were soon afterwards rendered Abortive by the Cells of the Hospital.

"These apartments are damp in Winter & too warm in Summer. They are moreover so constituted, as not to admit readily of a change of air; hence the smell of them is both offensive and unwholesome.

"Few patients have ever been confined in these Cells who have not been affected by a cold in two or three weeks after their confinement, and several have died of Consumption in consequence of this cold.

"These facts being clearly established, I conceive that the appropriating of these Cells any longer for the reception of mad people will be dishonourable both to the Science and Humanity of the city of Philadelphia.

"Should more wholesome apartments be provided for them, it is more than probable that many of them might be Relieved by the use of remedies which have lately been discovered to be effectual in their disorder.

"With great respect I am, Gentlemen, your friend and humble servant,

"BENJAMIN RUSH"

It does not seem that anything was done in direct response to this request.

In 1798, Rush once more wrote to the Board of Managers on the betterment of the condition of the lunatics in their care:

"April 30th, 1798

"Mr. Coates will please to recollect the following Propositions to be laid before the Managers for the benefit of the Asylum for Mad people, viz: 1st. Two Warm and two cold Bath rooms in the lowest floor—all to be Connected; also a pump in the Area to supply the Baths with Water.

"2nd. Certain Employments to be devised for such of the deranged people as are Capable of Working, spinning, sewing, churning, &c. might be contrived for the women; Turning a Wheel, particularly grinding Indian Corn in a Hand Mill, for food for the Horse or Cows of the Hospital, cutting Straw, weaving, digging in

the Garden, sawing or planing boards, &c. &c. would be Useful for the Men.

"BENJ. RUSH."

I cannot refrain from giving in full, from Morton's History, an important memorial addressed by Rush to the Managers in 1810 on the same subject. It is so full of personal interest, and has such an important bearing on the history of the treatment of the insane in the first decade of the nineteenth century, that I think it justly merits reproduction.

"GENTLEMEN:—When our late illustrious fellow Citizen, Dr. Franklin walked out from his house to lay the foundation stone of the Pennsylvania Hospital, he was accompanied by the late Dr. Bond and the Managers and Physicians of the Hospital. On their way Dr. Bond lamented that the Hospital would allure strangers from all the then provinces in America. Then (said Dr. Franklin) our institution will be more useful than we intended it to be.—This answer has been verified in a remarkable manner, and particularly in the relief our Hospital has afforded to persons deprived of their reason from nearly all the States in the Union. As great improvements have taken place in the treatment of persons in that melancholy situation, within the last thirty years, I beg leave to lay an account of them before you, as far as I have been able to obtain them, from the histories of Asylums for mad people in foreign countries, as well as from my own experience during five and twenty years attendance upon that class of patients in the Pennsylvania Hospital.

"By adopting them, we may extend the usefulness and reputation of the hospital, and thus contribute to add to the high character our city has long sustained for wise and benevolent institutions.

"The improvements which I wish respectfully to submit to your consideration are as follows:

"1. That small and solitary buildings be erected at a convenient distance from the west wing of the hospital, for the reception of patients in the high and distracted state of madness, in order to prevent the injuries done by the noises to persons in the recent, or convalescent state of that disease, and to patients in other diseases, by depriving them of sleep, or by inducing distress from sympathy with their sufferings.

"2. That separate floors be appropriated for each of the sexes.

"3. That certain kinds of labour, exercise and amusement be contrived for them, which shall act at the same time upon their bodies and minds. The advantages of labour have been evinced in foreign hospitals as well as our own, in a greater number of recoveries taking place, among that class of people who are employed in the ordinary work of the hospital, than in persons elevated by their rank in life above the obligations or necessity of labour. Exercise and amusements should be the substitutes for labour in such persons. The amusements should be swinging, seesaw, riding a hobby horse, or in what are called flying Coaches, playing at Chess and checkers, listening to the music of a flute, or violin, and in making short excursions into the City or Country. Perhaps kinds of labor might be discovered for every class of mad people, of such a nature as to afford a small addition to the funds of the hospital.

"4. That an intelligent man and woman be employed to attend the different sexes, whose business shall be to direct and share in their amusements and to divert their minds by conversation, reading, and obliging them to read and write upon subjects suggested from time to time by the attending physician. While we admit Madness to be seated in the mind, by a strange obliquity of conduct, we attempt to cure it only by corporeal remedies—The disease affects both the body and mind, and can be cured only by remedies applied to each of them.

"5. That no visitors be permitted to converse with or even to see the mad people (the Managers and officers of the Hospital excepted), without an order from the attending physician unless he depute that power to one of the resident Apothecaries. Many evils arise from an indiscriminate intercourse of mad people with visitors, whether members of their own families, or strangers. They often complain to them of the Managers, officers and physicians of the hospital, and at times, in so rational a manner as to induce a belief that their tales of injustice and oppression are true.

"Madness moreover which might have been concealed in individuals and in families, is thereby made public. Nor is this all. The anticipation of being exposed as a spectacle to idle and sometimes to impertinent visitors is the chief reason why our hospital is often the last, instead of the first retreat of persons affected by Madness. I would rather die (said a young gentleman of respectable connections in our City, a few years ago, who felt the premonitory signs of that disease) than to be gazed at and pitied, in the cell of a hospital. To prevent this poignant evil he discharged a musquet ball thro' his head, a few days afterwards.

"6. That a number of feather beds and hair mattresses, with an

arm chair be provided for the use of the cells of all those who pay a liberal price for their board, and whose grade of madness is such as not to endanger any injury being done to those articles.

"7. That each of the cells be provided with a close Stool with a pan half filled with water, in order to absorb the fœtor from their evacuations. The inventor of this delicate and healthful contrivance (Dr. Clark of New Castle, in England) deserves more from humanity and Science, than if he had discovered a new planet. Figure to yourselves, Gentlemen, the sufferings of persons in a small room from inhaling the fœtor of their stools for hours after they have been discharged into a Chamber Pot! Contrast the difference of this situation with that in which those persons passed days and nights of sickness and confinement in their own houses!

"But other and greater evils have followed the use of Chamber Pots in the cells of our hospitals. A. W. Searle, in Salem, Massachusetts, lost his life, in 1794, in consequence of the mortification of a wound upon his buttock brought on by one of them breaking under him, and there is good reason to believe that the malignant fever of which George Campbell died in the month of August last, was induced by his being constantly exposed to the exhalations from the faces of mad people, in emptying their chamber pots and cleaning their cells. I am aware that it would be impracticable to carry into effect all the matters suggested in this letter, in the Present State of the funds of our hospital, but the comfort of the mad people, and the reputation of the institution are inseparably connected with the immediate adoption of Some of them. There is a great pleasure in combatting with success a violent bodily disease, but what is this pleasure compared with that of restoring a fellow creature from the anguish and folly of madness, and of reviving within him the knowledge of himself, his family, his friends and his God! But where this cannot be done, how delightful the consideration of suspending by our humanity, their mental and bodily misery.

"Degraded as they are by their disease, a sense of corporeal pleasure, of joy, of gratitude, of neglect, and of injustice is seldom totally obliterated from their minds.

"I shall conclude this letter by an appeal to several members of your board to vouch for my having more than once suggested most of the above means for the recovery and comfort of the deranged persons under your care, long before it pleased God to interest me in their adoption by rendering one of my family an object of them.

"I am, Gentlemen, with great respect and esteem

"Your sincere friend and Servant

"BENJ. RUSH

"September 24th, 1810."

The Board of Managers took prompt action on this letter, and we learn from the report of its committee on this matter that such of the suggestions of Dr. Rush as had not already been adopted would be at once carried out.

The reference to an affliction in his own family in Dr. Rush's letter concerned a relative of his who when a lieutenant in the navy had killed a fellow-officer in a duel. As a result he became afflicted with melancholia. He was admitted to the Hospital on September 7, 1810, and lived there until his death on August 9, 1837. Morton says,—

"He was a most confirmed peripatetic, walking the floor, to and fro, every day and almost all day, until the planks of the ward flooring and of a certain place upon the board-walk of the yard were worn into deep gutters; these were always called 'Rush's Walk.'"

In Samuel Coates's note-book is a story concerning him:

"The Barber on combing his hair pleasantly remarked to him that it was becoming quite Grey, 'but never Mind;' added he, 'Grey hairs are honourable, you know.' 'Yes,' replied the patient emphatically, 'And sometimes Honour makes Grey hairs.'"

In Morton's "History" there is a figure of an apparatus designed by Dr. Rush for use in the treatment of insanity, known as a "tranquilliser." It was a chair with a frame made to hold the head of the patient in a fixed position. In this chair the unfortunate was strapped and retained until sufficiently tranquillized. He also devised a machine which he called a "gyrator" to be used in "torpid madness." It was supposed to cause an increased amount of blood to go to the head and thence produce a good effect.

Insane patients continued to be kept in the Hospital at Eighth and Spruce Streets until 1841, when the Insane

Department was removed to the place it continues to occupy in West Philadelphia.

The early entries regarding patients, their admission, treatment, etc., are in many instances most amusing. I have picked out a few from the many Morton takes from the records of the Hospital. Thus, on "March 31, 1760, —Discharged James Romage being too Ancient to hope Success from the Operation he returned thanks." As Dr. Morton says, this entry is ambiguous. On May 28, 1764, there was admitted "Alexr. Freeze a poor Sailor with Rose Drop, the Matron's Security." January 28, 1765, the records are most interesting, for on that day "Peter Foster Cured went away & took no leave," "Edward McCormick Cros'd in Love gave a note to pay when able," and Anna Goetz had "Histerick Passions her Son John Goetz her Security."

The Indian frontier of colonial days was not so far distant from Philadelphia that occasional victims of savage warfare did not find their way to the Pennsylvania Hospital. On "March 31, 1756, Admitted David Howell, a poor Patient from Berks County, having a Gunshot wound and fractured Bone on one Arm done the 6th inst. by the Enemy Indians, James Biddle of said County Security;" and on October 3, 1764, "Admitted Margaret Sinclair, a poor patient, with Disiness in the Head having been much abused by the Indians."

On October 13, 1755, "Michael Higgins a Soldier, was admitted, having his under jaw shot off in the late Engagement under General Braddock." There were also records of the admission of a number of soldiers of the provincial forces engaged in the wars between the French and English for the possession of the colonies in North America.

Several Indians were received as patients, and Morton

gives two entries concerning Chinese patients. On October 26, 1762, "Admitted a Negro Boy of John Gilliland's with Guinea Worms in his feet."

The objects put up as security by patients were sometimes of not much apparent intrinsic value. On October 3, 1764, "John Bryan a poor person was admitted with large ulcers, a pair of buckles his security," and on September 28, 1785, "a poor sailor was admitted with Rheumatism, his chest of cloathes, his security."

In 1755, the English having confiscated the lands of the French settlers in Arcadia, a number of the latter were deported, and in September of that year fourteen hundred of them were landed at Philadelphia. These unfortunates were quartered in huts and sheds near what is now Sixth and Pine Streets. Morton quotes from the minutes for April 26, 1763, the following: "Admitted as Out Patients Seven French Neutrals accidentally poisoned by Eating Poke Root which they had mistaken for Horse Raddish."

The Medical Library of the Pennsylvania Hospital has always been a source of just pride to the institution. Morton says the first minute of the Board of Managers relating to the Library is found on July 27, 1762, as follows:

"William Logan lately returned from London attended the Board with a Book entitled 'An Experimental History of the Materia Medica by Wm. Lewis, F.R.S.,' lately published in London, being a present to this Hospital by Doc'r John Fothergill for the Benefit of the Young Students in Physic who may attend under the Direction of the Physicians, which is kindly accepted by the Managers as an additional Mark of the Doctor's benevolent Regard to this Institution, and Wm. Logan is requested to acquaint him with our grateful Acceptance thereof."

It is interesting to find the great London physician taking at all times such an active interest in the affairs

of the young Hospital and doing so much for the promotion of medical science in America.

The physicians and surgeons of the Hospital showed a laudable zeal in the same direction. In May, 1773, they addressed the following proposal to the Managers:

"As the Custom of most of the Hospitals in Great Britain is to give such gratuities from those students who attend the Lectures of the Hospital to the Physicians and Surgeons attending the same, we think it properly belongs to us to appropriate the Money arising from thence. And we propose to apply it to the founding of a Medical Library in the Hospital which we judge will tend greatly to the Advantage of the Pupils & the honor of the Institution."

This proposal was acceded to by the Managers, and the funds from it were sufficient to furnish the Library with many volumes. Many gifts and donations of books from various sources were received, and a number of legacies of books were left to the Hospital.

In April, 1774, a committee of the Managers wrote as follows to William Strahan, the London bookseller, whose name will long survive embalmed in Boswell's pages:

"RESPECTED FRIEND.—The Managers of the Pennsylvania Hospital having deputed us to procure some books for the Medical Library, as we apprehend thou canst supply us in the most advantageous Terms we herewith send thee a List of them desiring thee to prepare and ship them by the first Vessel coming to this Port that they may be here before the Winter. This we are very desirous of as the young Students who from the neighboring Provinces attend the Lectures of the several professors in our Medical School may then have the benefit of reading them a year sooner than they can if they should not arrive before next Spring; for the Cost of them we will send thee a timely Remittance. When any new Books or Essays on any branch of Medicine appear we shall be glad to have copies of such of them sent us as are of small Cost, and an acc't of such as are more costly then if we judge them necessary we may send for them."

The above-mentioned books arrived in December.

Later the Managers requested Dr. Lettsom, of London,

1. The first part of the document is a list of the names of the persons who were present at the meeting.

to purchase and forward to them such medical books as he thought it desirable the Library should have.

In 1807 the long room on the second floor of the Hospital which is the Library was ordered fitted up for that purpose. It was used to contain the books until 1824, when the books were removed and the room converted into a lying-in ward. In 1835 the lying-in ward was removed to the Picture House and the books moved back to their old resting-place, where they have ever since remained.

Very stringent rules were made and enforced as regarded the use of the books, but at the same time provision was made that the Library should occupy as broad a field of usefulness as possible.

The first printed catalogue of the books in the Hospital Library was published in 1790. A second catalogue was rendered necessary in 1806 by the great increase in the number of books. Another was issued in 1829, followed by a supplement in 1837. In 1857 a Catalogue Raisonné was published, followed by a supplement in 1883.

The Museum of the Pennsylvania Hospital may be dated from 1757, when Deborah Morris presented to it a skeleton to be used for teaching purposes, but its real history begins in 1762. Morton quotes the following record of a meeting of the Managers held on November 8 of that year :

"The Board being called at the Request of Doc'r William Shippen jun'r, lately arrived from London, he attended & informed the Board that, Per the 'Carolina' Captain Freind, are arrived from Doc'r John Fothergill, Seven Cases which contain a parcel of Anatomical Drawings which the Doctor inform'd him when in London, he intended as a Present to the Pennsylvania Hospital, but that he has not received any Letter or Invoice of them nor any further directions but what the Doctor verbally gave him there & that he concludes his constant Engagements had prevented his Writing Per this ship. But by a Letter from him to James Pem-

berton dated 7th 4 mo. last he therein signifies in general his Intentions of sending this Present to the Hospital & The Uses he proposes thereby of wch the following is an Abstract:

"I distributed the Books thou wast pleas'd to send me as desir'd but they came perhaps at an unlucky Juncture, Money is much wanted here for numerous Purposes & men part with Fifty Pounds with reluctance when they know that a little more would purchase them a hundred, the Hospital however must subsist itself as well as possible till better times. I purpose to send by Doc'r Shippen a present to it of some intrinsic value tho' not probably of immediate Benefit. I need not tell thee that the Knowledge of Anatomy is of exceeding great use to Practitioners in Physic & Surgery & that the means of procuring Subjects with you are not easy, some pretty accurate anatomical Drawings about half as big as Life have fallen into my hands Which I purpose to send to your Hospital to be under the Care of the Physicians & to be by some of them explained to the Students or Pupils who may attend the Hospital.

"In the want of real Subjects these will have their Use & I have recommended it to Dr. Shippen to give a Course of Anatomical Lectures to such as may attend, he is very well qualified for the subject & will soon be followed by an able Assistant Dr. Morgan both of whom I apprehend will not only be useful to the Province in their Employments but if suitably countenanced by the Legislature will be able to erect a School for Physic amongst you that may draw many Students from various parts of America & the West Indies & at least furnish them with a better Idea of the Rudiments of their Profession than they have at present the Means of acquiring on your side of the Water.

"Should the Managers of the Hospital think proper I could wish that if the Drawings & Casts I shall send P. the next Convooy come safe they might be lodged in some low Apartment of the Hospital not to be seen by every Person but with the Permission of a Trustee & for some small Gratuity for the Benefit of the House. The Drawings are in Crayons & should therefore not be kept in too dry a place nor shaken about too much.'

"And Doctor Shippen proposing to exhibit a Course of Lectures on Anatomy this Winter requested he might have recourse to the said Drawings & Casts the Managers being desirous of countenancing him in his undertaking agree he may have the use of them in such manner and place as after consulting the Physicians may be thought most convenient & least prejudicial to the Drawings as they require to be handled with the greatest Delicacy & Care & after consulting with the Physicians, who on Notice being sent

them attended on the occasion viz. Thomas Bond, Phineas Bond, William Shippen, senr., John Redman, & Cadwallader Evans, to whom the proposal of Dr. Shippen junr. of his exhibiting a course of Lectures &c. being communicated they unanimously express'd their approbation thereof & it was concluded that the several Cases should be conveyed to the Hospital & that the Physicians & Managers would attend there tomorrow at 3 o'clock P.M. to view the Contents."

Many acquisitions were subsequently made, by purchase, gift, or legacy. In August, 1799, the Managers made an agreement with

"Wm Stevens Jacobs to board in the house during the prevalence of Yellow fever and while here to put the museum in good order, to pay \$4 per week for his board, find his own liquor, and not to go to the city during the fever."

In 1805 the first catalogue of the Museum was published with that of the Library. In 1824 the entire collection was presented by the Board of Managers to the trustees of the University of Pennsylvania, with the idea that its usefulness would thus be rendered greater. In 1853 steps were taken to form a new collection, which rapidly assumed large proportions. A curator was appointed, the first to hold the position being Dr. Thomas G. Morton, the subsequent historian of the Hospital. In 1869 the University returned to the Hospital as objects of historic interest the drawings and casts presented to it by Dr. Fothergill. In the same year Dr. William Pepper, who had succeeded Dr. Morton as Curator, compiled a descriptive catalogue, which was published by the Board of Managers.

It was not until 1803 that a maternity ward was regularly opened in the Hospital, although in 1793 the Pennsylvania Assembly passed an Act authorizing the Managers to furnish a ward for the reception of such patients. Women had been confined in the Hospital in previous years, but this had occurred through the accident of cir-

cumstances. We have seen that Mrs. Girard was delivered of a child while a patient of the Hospital. The first birth recorded in the Hospital was on July 17, 1765, when there was "Born a female child of Martha Robinson a poor patient." In 1854 the lying-in ward was finally closed on account of the prevalence of puerperal fever among the patients in it. The ward had been first in the second floor of the east wing until 1817, when the Contributors' room was ordered by the managers to be used for that purpose. From 1824 to 1835 the present Library was used as the lying-in ward. In 1835 the ward was transformed to the Picture House, where it remained until finally closed.

For some years subsequent to the founding of the Hospital no especially trained assistants were required to attend to the routine wants of the sick in it. The matron and attendants looked after all the matters now in the hands of the resident staff of physicians and trained nurses. It was customary for the attending physicians and surgeons to bring with them their apprentices, as their private students were at that time, and they would render the necessary assistance to their masters in dressing cases, etc. In 1773 the managers began the custom of taking apprentices to live in the Hospital. These were young men studying medicine, who in return for the instruction afforded them during their term in the Hospital rendered service as dressers, etc., in the wards. Morton has a fac-simile of the indenture of Thomas Boutler to "learn the Art, Trade and Mystery of an Apothecary." The apprentice was bound to serve the Hospital for a term of five years, at the end of which period he was furnished with a suit of clothes and an engrossed certificate. It was not until 1824 that it was made obligatory on residents that they should possess the

degree of doctor in medicine before they could obtain the position.

Morton³ presents us with the following account of a visit to the Hospital made in the year 1787:

"When we came to the Hospital, Dr. Clarkson left me, and went into the city on his son's horse. Young Mr. Clarkson conducted me into the Hospital. Dr. Rush arrived in a few minutes after. This building is in the form, as you approach it from the city, of an inverted **L**. It is surrounded with a high wall, and has back of it a very large kitchen-garden. The door in the centre opens into a large hall. On each end are apartments for the nurses, cooks, etc. We ascended the stairway out of this hall into another hall in the second story, at one end of which is a large room, which contains a fine medical library, where the Directors were sitting, and a smaller room, where the medicine is placed. On the opposite end are the apartments for the attending Physicians. The third story is formed in the same manner. On one side of this hall is the Museum, where there is a collection of skeletons and anatomies. . . . It is also furnished with a number of preparations and preservations relating to Physics and Surgery.

"After we had taken a view of the Museum, we returned to the Upper Hall, where several Physicians and all the young students in Physic in the City were waiting. Dr. Rush then began his examination of the sick attended by these gentlemen, which I judged to be between twenty and thirty. We entered the upper chambers of the sick, which is the leg of the **L**. It is a spacious room, finely ventilated with numerous large windows on both sides. There were two tiers of beds, with their heads towards the walls, and a chair and small table between them. The room was exceedingly clean and nice, the beds and bedding appeared of good quality, and the most profound silence and order were preserved upon the Doctor's entering the room. There were only women and about forty in number. Dr. Rush makes his visits with a great deal of formality. He is attended by the Physician who gives him an account of everything material since he saw them last, and by the Apothecary of the Hospital who minutes his Prescriptions. In every case worthy of notice, he addresses the young Physicians, points out its nature, the probable tendency, and the reason for the mode of

³ Abstracted from the Journal of Rev. Manasseh Cutler, Philadelphia, 1787, vol. i. p. 253. Memoirs of Matthew Clarkson, 1735-1800. Phil., 1890.

treatment which he pursues. On this occasion the Doctor was particularly attentive and complaisant to me, and seemed to consider me as a Physician.

"From this room we went to the next below it, which is in every respect similar. It is appropriated to the men. He began, as before, on one side, and went around the room. Every patient is on his own bed or chair. Most of the cases were chronic, many of them swellings and ulcerations, and some of them very singular; but I have not time to describe them. Their dressings were all ready to be taken off and exposed to view the instant the Doctor came to them. These he imputed to their drinking spirituous liquors, and did not fail to remind them of it. He told me the greater proportion of his cases in the city were similar cases, and originated from the same cause. There were between forty and fifty in this room. We next took a view of the Maniacs. Their cells are in the lower story which is partly underground. These cells are about ten feet square, made as strong as a prison. On the back part is a long entry, from which a door opens into each of them; in each door is a hole large enough to give them food, etc., which is closed with a little door secured with strong bolts. On the opposite side is a window, and large iron grates within to prevent their breaking the glass. They can be darkened at pleasure. Here were both men and women, between twenty and thirty in number. Some of them have beds; most of them clean straw. Some of them were extremely fierce and raving, nearly or quite naked; some singing and dancing; some in despair; some were dumb and would not open their mouths; others incessantly talking. It was curious indeed to see in what different strains their distraction raged. This would have been a melancholy scene indeed, had it not been that there was every possible relief afforded them in the power of man. Every thing about them, notwithstanding the labor and trouble it must have required, was neat and clean. From this distressing view of what human nature is liable to, and the pleasing evidence of what humanity and benevolence can do, we returned to the room where the Directors were. . . . Such is the elegance of these buildings, the care and attention to the sick, the spacious and clean apartments, and the perfect order in every thing, that it seemed more like a palace than a hospital, and one would almost be tempted to be sick, if they could be so well provided for."

Another visitor to the Pennsylvania Hospital, whose account of it is transcribed by Dr. Morton, was M. de Warville. He saw the Hospital in 1788, and wrote,—



Corner-stone of the Pennsylvania Hospital.



Seal of the Pennsylvania Hospital.

(From Morton's "History of the Pennsylvania Hospital.")

1

"I have seen the hospitals of France, both at Paris and in the provinces; I know none of them but one at Besançon that can be compared to this at Philadelphia. Every sick and every poor person has his bed well furnished, but without curtains, as it should be. Every room is lighted by windows placed opposite, which introduces plenty of light.

"Blacks are here mingled with the whites and lodged in the same apartments. This to me seemed a balm to my soul. I saw a negro woman spinning with activity by the side of her bed. She seemed to expect a word of consolation from the director; she obtained it, and it seemed to be heaven to her to hear it. On our return from the hospital we drank a bottle of cider. Compare this frugal repast to the sumptuous feasts given by the superintendents of the poor of London—by those humane inspectors who assemble to consult on making repairs to the amount of six shillings and order a dinner for six guineas! You never find among the Quakers these robberies upon indigence, these infamous treasons against beneficence. Bless them ye rich and poor; ye rich, because their fidelity and prudence economize your money; ye poor, because their humanity watches over you without ceasing.

"The hospital is fine, elegant and well kept. I observed the bust of Franklin in the library and was told this honor was rendered to him as one of the principal founders of the institution. Each one of the lunatics (about fifteen) has a cell, with a bed, a table and a convenient window fitted with grates. Stoves are fixed in the walls to warm the cells in winter. There were no male persons among them. Most of the patients are victims of religious melancholy or disappointed love. Dr. Rush has invented a kind of swing chair for their exercise. I asked the humane and enlightened Dr. Rush why the cells were placed beneath the ground floor, exposed to the unwholesome humidity of the earth. He told me he had endeavoured for a long time, but in vain, to introduce a change in this particular, and that this hospital was founded at a time when little attention was thought necessary for the accommodation of fools. I observed that none of those fools were naked or indecent—a thing very common with us. These people preserve, even in their folly, their primitive characteristic of decency."

The New York Hospital.

The Pennsylvania Hospital was well launched forth on its benevolent career before any similar institution arose in any of the other colonies. The second hospital, as we

now understand the term, to be founded in the English colonies in North America was the New York Hospital. The first mention of any project for the founding of a hospital in that city is to be found in a discourse delivered by Dr. Middleton in King's (now Columbia) College on November 3, 1769. He ascribes the honor of its first suggestion to Dr. Bard, saying,—

“The necessity and usefulness of a public infirmary, has been so warmly and pathetically set forth, in a discourse delivered by Dr. Samuel Bard, at the commencement in May last, that his excellency, Sir Henry Moore, immediately set on foot a subscription for that purpose, to which himself and most of the gentlemen present liberally contributed. His excellency also recommended it, in the most pressing manner to the assembly of the province, as an object worthy of their attention; and the corporation of the city have given assurances of granting a very valuable and commodious lot of ground for erecting the building upon; so that there is now, almost a certain prospect of this benevolent and humane foundation soon taking place. And as it is to be on the most catholic and unexceptionable plan, it is to be hoped, that it will meet with the countenance and encouragement of every compassionate and good member of society, whatever party or denomination he may choose to be distinguished by, on other occasions.”

The speech of Dr. Bard in which he set forth the necessity for an infirmary has not descended to us.

In 1770 Drs. Peter Middleton, John Jones, and Samuel Bard presented a petition to Lieutenant-Governor Cadwallader Colden, who was himself a physician, requesting a charter of incorporation for the Hospital.

This charter was granted July 13, 1771. It incorporated a number of prominent inhabitants of New York as “The Society of the Hospital in the City of New York in America.” A board of governors was named, consisting of twenty-six of the incorporators, and these gentlemen held their first meeting on July 25, 1771.

It is interesting to observe that Dr. Fothergill, of London, is one of the incorporators. He had been one of the most generous benefactors to the Pennsylvania Hospital, presenting them with books for their Library and pictures and casts to illustrate the study of anatomy. Not only was he thus prominently connected with the founding of the two first hospitals in this country, but he aided many young medical men from America in their individual labors in the study of medicine abroad, and we find Thomas Penn donating a chemical apparatus to the newly-founded Medical Department of the University of Pennsylvania upon his recommendation.

Drs. Middleton, Bard, and Jones were probably the three most eminent medical men of their day in New York.

Brief sketches of their careers have already been furnished in the account of their connection with the founding of the Medical School of King's College, New York. They fully realized how essential a hospital would be as an adjunct to the medical college they were establishing, and they pushed both projects with all the power at their command. They were all more or less prominent in civic life and stood high in the esteem of their fellow-citizens, consequently their labors were more likely to prove successful than they would have been if there had been nothing back of their efforts but their standing as medical men.

Dr. Fothergill and Sir William Duncan succeeded in raising a considerable amount of money in London for the use of the Hospital, and in 1772 the New York Legislature granted it an annual allowance of eight hundred pounds for twenty years.

Committees of the Governors were appointed to visit the various wards in the city and solicit subscriptions;

the clergy were asked to seek the aid of their congregations. In 1774 the Governors asked householders to allow persons in the employ of the Hospital to sweep their chimneys and to donate to the Hospital what the expense would otherwise have been to them. Mr. Douglass, the theatre manager, gave the Hospital a benefit. The Earl of Sterling sent the Governors twelve Delaware lottery tickets, but no prize was drawn by any of them.⁴

In 1773 the Board of Governors purchased from a Mrs. Barclay and a Mr. Rutgers a lot suitable for the erection of the Hospital, and on the 27th of July, 1773, the foundation was laid, but before the completion of the buildings they were almost totally destroyed by fire on February 28, 1775.

These buildings had been constructed after plans which had been procured by Dr. Jones during a trip to Europe in 1772. The only knowledge we have of the character of these plans is derived from a book on military surgery published by Dr. Jones in 1775. In it he speaks of the unhygienic arrangements of the wards of the Hôtel Dieu in Paris, and then says,—

"It is to be hoped that the hospital lately built in the city of New York will have fewer objections to its plan than any hospital hitherto constructed. The principal wards, which are to contain no more than eight beds, are thirty-six feet in length, twenty-four feet wide and eighteen high. They are all well ventilated, not only from the opposite disposition of the windows, but by proper openings in the side walls, and the doors open into a long passage or gallery, thoroughly ventilated from north to south."⁵

⁴ Centenary Address delivered before the Society of the New York Hospital, by James William Beckman, July 24, 1871.

⁵ His description of the Hôtel Dieu is horrifying: "In Paris it is supposed that one third of all who die there die in hospitals. The Hôtel Dieu—a vast building, situated in the middle of that great city—receives about twenty-two thousand persons

The original estimates for the building called for an expenditure of about seventeen thousand dollars. The structure was to be built of stone.

Although almost completely destroyed by fire in February, 1775, yet means were procured, and the work of reconstruction so vigorously pushed that the New York Provincial Congress took possession of them on April 2, 1776, to use as barracks. A ditch was dug about the Hospital twelve feet wide and seven feet deep for defensive purposes.

Beekman, in his "Centenary Address," states that the first surgical operation performed in the Hospital was an amputation of the arm, performed by Dr. Samuel Drowne, a surgeon's mate in the general hospital of the Continental army. This was in July, 1776. In a letter speaking of this amputation, Dr. Drowne mentioned that "one ball came into the hospital yard, struck the ground at a little distance from us, and bounded through ye board fence." Probably the buildings were not long used as barracks but were soon converted into their original purpose, as Drowne says the amputation was performed "at the new City Hospital, which had been fitted for ye wounded." When the Americans evacuated New York in August, 1776, the British entered the city and con-

annually, one-fifth of which number die every year. It is impossible for any man of humanity to walk through the long wards of this crowded hospital without a mixture of horror and commiseration at the sad spectacle of misery which presents itself. The beds are placed in triple rows, with four and six patients in each bed; and I have more than once in the morning rounds, found the dead lying with the living; for, notwithstanding the great assiduity and tenderness of the nurses, some of whom are women of family, who take the veil and piously devote themselves to that office, yet it is almost impossible, from the vast number of patients, to bestow timely assistance upon every individual."

verted the Hospital buildings into barracks for the Hessians.

Throughout the war and during the troublous years immediately ensuing the Society of the Hospital in New York contrived to hold annual meetings for the election of officers, although the buildings were not used for hospital purposes by the Society till January, 1791.

In March, 1785, the Society allowed some poor Scotch emigrants to lodge temporarily in the buildings, which occupation seems to have continued until June of that year. In the winter of 1785, Dr. Bailey was allowed to occupy several rooms for dissecting purposes. There is a record of Dr. Bailey's having operated on patients in one of the rooms. The State Legislature held some of its meetings in the buildings. The most interesting, however, of all the events which occurred in this period of the Hospital's history was the famous "Doctors' Mob" riot, on Sunday, April 13, 1788. This was the result of ignorant prejudice against the dissection of the human body. Rumors had been circulated of terrible doings by doctors in the Hospital buildings. A doctor waved a dead arm from one of the cadavers at a boy peeping in the windows. An angry crowd surrounded the Hospital and stormed the buildings. The doctors fled to the city jail for refuge, and the militia were called out to protect them. The mob attacked the jail. The celebrated John Jay and Baron Steuben hastened to the jail and endeavored to reason with the rioters. Their efforts were futile, they themselves being assaulted. Baron Steuben was knocked down. As he fell he cried to the mayor, James Duane, "Fire, Duane, fire!" The militia fired a volley, which killed seven of the rioters and wounded seven or eight. The Governors of the Hospital disclaimed all responsibility for the occurrences leading to this disgraceful affair,

and presented a bill to the doctors who had occupied the Hospital of twenty-two pounds seven shillings ten pence. The doctors were also ousted from the buildings.

In April, 1790, the Governors sought the advice of Drs. Samuel Bard and Malachi Treat as to what steps should be taken for devoting the Hospital to its proper purposes. They also appointed a committee to confer with the gentlemen interested in the recently established New York Dispensary as to how the two organizations might best arrange to work to their mutual welfare. On the 3d of January, 1791, the Hospital was finally reopened with eighteen patients.

There was no restriction placed as to the nature of the ailment from which those desirous of admittance suffered. The insane were admitted along with the mentally sound. In 1798 the Governors in a memorial to the State Legislature say that their Hospital is for the reception of such as require medical treatment or chirurgical management, for maniacs, and for women.⁶ In this same memorial they mention that the students of Columbia College derive the advantage of clinical teaching from its wards, and that the Governors have voted two hundred pounds for the foundation of a library.

The Governors used to meet in various coffee-houses and taverns, and sometimes at the City Hall, until their meeting of May 17, 1791, which was held, as all subsequent ones have been, in the Hospital.

Beekman gives an interesting description of the lot upon which the Hospital was built. The Governors purchased, in 1771, five acres of the Rutgers farm, which was spoken of as lying "in the meadows near the Fresh Water." He says,—

⁶ Beekman, loc. cit.

"Broadway then ended abruptly in the fields at Barley street, now Duane street. The spot selected for our hospital was upon a spur or hill, surrounded on three sides by marshes. The water of two ponds or *kolcks* frequently overflowed the meadows where now is the corner of Pearl and Chatham streets, so that ferry-boats were used; a bridge was afterwards built there. Rutgers had suffered so lamentably with fever and ague that he had, some years before, prayed the king for a better title to his marshes, so that he might convey a fee to somebody willing to drain them, for the inhabitants lost one-third of their time by sickness."

In 1780 the ground back of the Hospital was chosen as the most retired spot on which to fight a duel. Anent duels, in 1799, one of the house-surgeons was reprimanded for practising outside the Hospital and being too often absent. He challenged Dr. Hosack to meet him "at Hobuck." Dr. Hosack forwarded the challenge to the Board of Governors, whereupon the surgeon posted up an abusive paper in the Coffee-House, and insisted on an apology from Dr. Hosack. The Board of Governors' reply was to dismiss him from the Hospital.⁷

It has been mentioned that prior to the Revolution the Provincial Legislature had given the Hospital an annual grant. Of course this lapsed after the war, but in 1788 the State Legislature passed a bill granting the Hospital corporation eight hundred pounds, to be paid to it during the four years ensuing from February 1, 1788, out of funds derived from the excise in the city of New York. In 1792 the Legislature passed another act granting the Hospital two thousand pounds a year for five years, again making it payable out of the excise. On March 31, 1795, an act was passed repealing the act of 1792 as regarded the future payments to the Hospital, but granting it instead four thousand pounds annually for five years, payable out of the duties on sales at public auction in the city of New York.

⁷ Beekman, loc. cit.

On April 11, 1796, this was supplemented by an additional grant of one thousand pounds a year for four years, payable out of the same fund. On March 20, 1801, the annual allowance of twelve thousand five hundred dollars was continued for five years, from February 1, 1800.

On April 1, 1796, in an act passed by the Legislature for the regulation of the port of New York, the harbor master was ordered to pay the penalties derived from certain fines to the Hospital.

On March 30, 1797, an act was passed establishing a lazaretto for the port of New York, and in it the masters and wardens of the port were authorized to receive of the masters, officers, seamen, and passengers of every vessel entering the port of New York a certain sum for each person. The money thus collected was ordered to be turned over to the commissioners of health, to be applied to the relief of sick seamen and foreigners who should be admitted to the Lazaretto, and if any surplus should remain it was to be paid over to the New York Hospital, the Board of Governors of which were to apply it to the relief of any sick seamen or foreigners who might be patients of the Hospital.

In 1799 the Treasury Department of the United States entered into an agreement with the Hospital authorities by which sick and disabled seamen at the port of New York were to be received into the Hospital. The collector of the port was to pay the Hospital three dollars a week for each seaman thus received.

In 1801 the Governors of the New York Lying-in Hospital, which had been founded in the year 1798, paid over to the Board of Governors of the New York Hospital all the funds in their possession, the latter institution agreeing to open a maternity ward.

The connection between the Hospital and Columbia College was very close, many of the professors in the College being on the staff of the Hospital, and the medical students having the privilege of availing themselves of the clinical facilities of the Hospital wards. In August, 1796, the Board of Governors of the Hospital appropriated five hundred dollars towards the founding of a medical library, and the various professors of the College contributed books from their private libraries and money from the fees collected by them for instructing students. In 1800 the Hospital acquired by purchase the library of Dr. Romaine, and in 1805 the Medical Society of New York presented the Hospital with its library, on condition that they and such of their sons as became physicians should always have free use of the Hospital's Library. In the same year the Board of Governors agreed to set aside two hundred and fifty dollars annually for the purchase of books for the Library. Soon after they purchased the botanical library of Dr. Hosack. In 1811 the Library contained about three thousand volumes.

As before mentioned, the Hospital admitted the insane to its wards, but it was soon found that there was not adequate accommodation to properly care for them. In 1806 the Governors applied to the Legislature for aid in erecting a separate institution for the care of the insane. This application was successful, and on the 15th of July, 1808, the Lunatic Asylum of the New York Hospital was opened with sixty-seven inmates. This asylum was erected at a cost of fifty-six thousand dollars, and the Bloomingdale Insane Asylum is its lineal descendant. The following account of the manner in which the latter was founded is of interest. It is contained in the "Account of the New York Hospital," published by the Hospital in 1820.

"In consequence of a communication made to the Governors in April, 1815, by Thomas Eddy, stating the advantages that might be produced, by introducing a course of moral treatment, for the lunatic patients, more extensive than had hitherto been practised in this country, and similar to that pursued at 'The Retreat,' near York, in England; and proposing, that a number of acres of ground, near the city, should be purchased, and suitable buildings erected for the purpose; a committee was appointed by the Governors, to consider of the plan proposed, and to report their opinion thereon. This committee, having approved of the plan, and recommended its adoption, the Governors resolved to carry it into effect, if they could obtain the aid of the Legislature. Application having been made for that purpose, an act was passed the 17th of April, 1816, granting to the Hospital, the yearly sum of \$10,000, until the year 1857, to enable the Governors to erect further and more extensive accommodations for insane patients. Thirty-nine acres of land, on the Haerlem heights, about seven miles from the city, were accordingly purchased, at \$240 per acre, as a site for the proposed institution. The distance being thought by some, to be greater than was desirable, twenty acres of ground on the East River, two miles nearer the settled parts of the city, were purchased; but after a more particular examination, it was found not to be adapted, in all respects to the plan contemplated; and it was afterwards sold, at a profit of two thousand dollars. After inspecting the different places on York Island, and on the opposite side of the East River, which were supposed to afford suitable situations for such an establishment, it was determined, on a comparison of them with the one already purchased at Harlem, that the latter was, on the whole, preferable. On exploring the ground, however, for the purpose of laying the foundation of the intended building, the soil was discovered to be generally wet, covering a stratum of hard granite, lying about two feet below the surface; it was therefore deemed unfit for the purpose. Another piece of ground, not far from the same spot, and nearer to the Hudson, containing about twenty-six acres, fronting on the Bloomingdale road, near the seven mile stone, after being thoroughly explored, was found to be remarkably dry and pleasant, and from its elevated situation, affording an extensive and delightful view of the river, and the adjacent country. This place was purchased at five hundred dollars per acre, and some small pieces of ground adjoining, have since been added, making the whole quantity 77 acres 2r. 34p. On this spot, the cornerstone of a building for the accommodation of lunatics, was laid, on the 7th day of May, 1818."

In 1804 there were six physicians and four surgeons on the attending staff of the Hospital. One physician was required to visit every medical patient, afflicted with any acute disease, at least once a day, and oftener if necessary; and every medical patient, without distinction, must be visited at least three times a week. The surgeons were required to visit the Hospital at least three times a week and every surgical patient at least once a week. These services were gratuitously performed.

A house-physician and a house-surgeon were appointed each year to serve for the ensuing twelve months. The qualifications required in those desirous of filling these positions were, that they should be at least twenty-one years of age, have been pupils of a practising physician or surgeon for three years, during which time they must have attended a complete course of lectures in one of the colleges, have attended the daily practice of the Hospital for one year, and must be examined by the physicians and surgeons, and produce ample testimonials of their good moral character. They were required to make daily rounds of the wards in the morning and evening and to be prepared to report upon the state of their patients to the visiting physicians and surgeons at their visits.

All appointments to the medical staff were made by the Board of Governors. There were twenty-six of the latter, who gave their services without remuneration.

The other house-officers were a superintendent, a matron, and an apothecary. All of these depended for their appointments on the Board of Governors. The apothecary had to undergo a preliminary examination at the hands of the visiting physicians and surgeons and be recommended by them to the Board of Governors before receiving his appointment.

The Lunatic Asylum was under the charge of one

physician. The first to hold this important position was Dr. Bruce, and he occupied it for many years with great ability.

On March 9, 1810, the Legislature passed an act changing the title of the corporation from "The Society of the Hospital in the city of New York in America" to "The Society of the New York Hospital" on the request of the Society.

The Humane Society of Philadelphia.

This useful organization came into existence in 1780, in the midst of the turmoil incident to the Revolutionary War, and remains yet alive as witness to the fostering care of its successive generations of members.

Its objects were the

"recovery of drowned persons, and of those whose animation may be suspended from other causes, as breathing air contaminated by burning charcoal, hanging, exposure to the choke damp of wells, drinking cold water while warm in summer, strokes of the sun, lightning, swallowing laudanum."

The Society served in reality all the purposes of a first-aid or emergency organization.

It offered prizes at one time for the best dissertations on the means of restoring life to persons apparently dead by drowning. These theses were to be written in English, French, or Latin, and the prizes were to be awarded by the "Medical Professors of the University of Pennsylvania."

The Philadelphia Dispensary.

The first effort to found a dispensary for the poor in Philadelphia was made in 1786, and resulted in the establishment of the Philadelphia Dispensary, which, however, was not chartered until 1796.

Every person who should pay one guinea a year could become a contributor, or on paying ten guineas down would receive a certificate of life-membership. Twelve managers were chosen annually from among the contributors, and the Managers annually appointed six attending and four consulting physicians and surgeons, a treasurer, and an apothecary. The attending physicians were to be on duty two months in each year, and their services were rendered for nothing.

In 1800 the Managers purchased a lot of ground on Fifth Street, and there the Dispensary has made its home ever since, continuing the good work begun so long ago.

New York City Dispensary.

On the 4th of January, 1791, a number of citizens of New York held a meeting at the City Hall in order that they might devise some method of providing medical assistance to the worthy poor. The Medical Society of New York, under the leadership of its president, Dr. John Bard, was very forward in the movement. A constitution for the association was agreed upon. The Hon. Isaac Roosevelt, Esq., was chosen as president, and Drs. Richard Bayley and Samuel Bard made senior physicians. Twelve other physicians, all members of the Medical Society, were selected to give free medical advice in different districts of the city. In the account of the Dispensary⁸ from which I quote the following paragraph from their constitution is given:

"Every person who shall pay annually into the hands of the treasurer two dollars shall be a member of this institution, and be entitled to have two patients at one time on the Dispensary list, and for every two dollars and a half, which shall be annually paid by any subscriber over and above five dollars per annum, such sub-

⁸ American Medical and Philosophical Register, 1814, vol. iv.

scriber shall be entitled to have one other patient on the Dispensary list, and every subscriber who shall subscribe and pay fifty dollars shall be a member for life, and be entitled to have two patients always on the list."

On the death of Isaac Roosevelt, in 1794, the Rev. John Rodgers was elected president. He resigned in July, 1810, and was succeeded by General Matthew Clarkson.

In April, 1805, the Legislature passed an act incorporating the Dispensary.

In the yearly report presented December 24, 1795, the total number of patients treated is stated to have been five hundred and thirty-six. The epidemic which visited New York in 1795, 1797, and 1798, and the yellow fever of 1803, greatly increased the distress among the poor of the city and added to the amount of work required of the Dispensary. The trustees appointed a committee to suggest how its work might be made more effectual. This committee having reported, the trustees adopted its recommendations. The city was divided into four districts and four physicians appointed to take charge of all the patients therein. An apothecary was appointed to put up the prescriptions of these physicians.

In 1805 the Dispensary amalgamated its work with that of the Kine-Pock Institution. The New York Institution for the Inoculation of the Kine Pock had been organized on the 11th of January, 1802. Its object was to promote the substitution of cowpox inoculation instead of smallpox, and to preserve a constant supply of genuine vaccine material. The first vaccine physician appointed after this union was Dr. Valentine Seaman.

The usefulness of the Dispensary grew rapidly. In 1811 fourteen hundred and forty-six patients were treated for various complications and one thousand and sixteen had received free vaccination.

In 1810 the corporation of the city of New York presented the Board of Trustees with a lot of land on Tryon Street, to be used for the erection of a suitable dispensary building.

CHAPTER VIII.

HISTORY OF THE MEDICAL SOCIETIES FOUNDED BEFORE
THE YEAR 1800.¹

THE first association of physicians into a society of which there is any record in America was in Boston. It existed from 1735 until at least 1741, when it disappeared in the sands of time. We know nothing of it except what follows. On February 18, 1735, Dr. William Douglass, of Boston, wrote to Dr. Cadwallader Colden, of New York,²—

"We have lately in Boston formed a medical society, of which, this gentleman [Dr. Clark, who carried the letter], a member thereof, can give you a particular account. We design from time to time to publish some short pieces; there is now ready for the press number one, with this title page:—

"Number One.

Medical Memoirs.

Containing

"1. A miscellany. Practical introduction.

"2. A history of the dysentery epidemical in Boston in 1734.

"3. Some account of a gutta-serena in a young woman.

"4. The anatomical inspection of a spina ventosa in the vertebræ of the loins in a young woman.

"5. Some practical comments or remarks on the writings of Dr. Thomas Sydenham.

"Published by a Medical Society in Boston, New England."

¹ A considerable part of this chapter was published in the *Philadelphia Medical Journal* for January 27, 1900. I am indebted to that journal for permission to republish it.

² Massachusetts Historical Society's Collections, fourth series, vol. ii.

This title-page indicates a most interesting number, but it was, unfortunately, for some unknown reason, never published.

Dr. Douglass, in 1736, published a pamphlet called "The Practical History of a New Epidemical Eruptive Miliary Fever, with an Angina Ulcusculosa which prevailed in Boston, New England, in the years 1735 and 1736." This was dedicated³ "To a Medical Society in Boston," and he began his preface as follows:

"GENTLEMEN, This Piece of Medical History does naturally address itself to you, considering that I have the pleasure of being one of your number, that you have been fellow labourers in the management of this distemper, and therefore competent judges of this performance, and that where difficult or extraordinary cases have occurred in any of your private practice, I was favoured to visit the Patients in order to make a minute Clinical enquiry; in short, without your assistance this piece would have been less perfect, and not so well vouched."

Green mentions a long communication in *The Boston Weekly News-Letter* for January 5, 1737, addressed "To the Judicious and Learned President and Members of the Medical Society in Boston," and signed "Philanthropos." It was a plan for the regulation by law of the practice of medicine in Massachusetts.

He also mentions that the same newspaper for November 13, 1741, contains a report of an operation for stone in the bladder, on Joseph Baker, aged six years. It was performed "in Presence of the Medical Society" by Dr. Sylvester Gardiner. It began:

"A Medical Society in Boston, New England, with no quackish view, as is the manner of some; but for the Comfort and Benefit of the unhappy and miserable Sufferers by the excruciating Pain, occasioned by a Stone in the Bladder, do publish the following Case."

³ Green's History of Medicine in Massachusetts.

The above facts, gathered by Dr. Green, comprise all our knowledge as to this medical society. It is curious that Thacher, who was a surgeon in the Revolutionary army, and hence old enough to have heard of it by tradition, at any rate, makes absolutely no mention of its existence. Josiah Bartlett⁴ says of it,—

“The first information of physicians in an associated capacity is in the preface to Douglass, which is addressed to a medical society in Boston; but there are no particulars respecting it. A gentleman (Dr. James Lloyd) lately deceased, whose memory included a retrospect of sixty years, and who knew the author, had no recollection of its existence. It was probably temporary, for conference and consultation on a distressing epidemic (*cynanche maligna*) which prevailed at that time.”

Wickes⁵ found in the library of the New York Academy of Medicine a manuscript with the following title: “An Essay on the nature of ye malignant Pleurisy that proved so remarkably fatal to the Inhabitants of Huntington, Long Island, and some other places on Long Island; in the winter of the year 1749, Drawn up at the request of a Weekly Society of Gentlemen in New York, and addressed to them at one of their meetings, by Dr. Jno. Bard, New York, 1749,” and as in the text the writer speaks of the epidemic as now prevailing, it is to be inferred the society existed in the year 1749. This is the only mention of this society that I know of, but it seems authentic enough to give it the second place among such bodies in their order of foundation.

In 1765 a number of medical men in Philadelphia formed themselves into a society under the name of the “Philadelphia Medical Society.”

⁴ Historical Sketch of Medical Science in Massachusetts, Massachusetts Historical Society's Collections, second series, vol. i. p. 105.

⁵ History of Medicine in New Jersey.

It enjoyed a brief existence of three years, at the expiration of which period it merged with the American Society for Promoting Useful Knowledge, which subsequently changed its name to the American Philosophical Society, and as such is probably the best-known scientific society in America at the present day. When the societies united the members of the Philadelphia Medical Society were Drs. Graeme, Cadwalader, Redman, Morgan, Kearsley, Clarkson, Bayard, Harris, Rush, Sowman, Glentworth, and Potts. None of its records have descended to us.

New Jersey Medical Society.

The oldest of still existing medical societies is the Medical Society of New Jersey.

Wickes⁶ says the first public mention of its foundation is to be found in the *New York Mercury*, as follows:

"A considerable number of the Practitioners of Physic and Surgery in East New Jersey, having agreed to form a Society for their mutual improvement, the advancement of the profession and promotion of the public good, and desirous of extending as much as possible the usefulness of their scheme, and of cultivating the utmost harmony and friendship with their brethren, hereby request and invite every gentleman of the profession in the province, that may approve of their design, to attend their first meeting, which will be held at Mr. Duff's, in the city of New Brunswick, on Wednesday the 23rd of July, at which time and place the Constitution and Regulations of the Society are to be settled and subscribed.

"EAST NEW JERSEY, June 27th, 1766."

On that day sixteen physicians met and drew up and adopted the following:

⁶ History of Medicine in New Jersey, from which my information concerning it is entirely derived.

"INSTRUMENTS OF ASSOCIATION AND CONSTITUTION
OF THE
NEW JERSEY MEDICAL SOCIETY.

"Whereas, Medicine, comprehending properly Physic and Surgery, is one of the most useful sciences to mankind, and at the same time the most difficult to be attained, so much so that, indeed, perfection therein is perhaps never to be acquired, the longest life spent in its pursuit always finding something new to occur, and lamenting something still wanting to perfect the art.

"And, as every means, therefore, that will tend to enlarge the stock of knowledge and experience of the pursuit of this science, should be eagerly sought after and prosecuted; and whereas, among those gentlemen of particular towns, neighbourhoods or districts, who have already been initiated in the healing arts and engaged in the practice, nothing seems better adapted to such a desirable end than a friendly correspondence and communication of sentiment, especially if united in a well-regulated society; the improvements of each, either from study or observation, being by this method diffused to many, and each member, as well as the public, thereby being essentially benefited—exclusive of the pleasures of social intercourse and the many useful refinements that might flow from thence. And whereas, further considerable advantages from societies of this kind, properly instituted, might frequently arise, particularly where the law or custom has not established necessary regulations respecting the admission of candidates, the due rewards for practitioners services, the maintenance of the dignity of the profession, and the security of the public from impositions and the like, it being in such cases, till better remedies be provided, in the power of a society, including the respectable practitioners of a city, county, or large district, to do much for the advancement of their art, and the interest of the people among whom they reside.

"Moved by sentiments of this kind, and with the most upright and sincere intention of promoting the above mentioned and other good purposes, we, the subscribers, Practitioners of Physic and Surgery in New Jersey, now assembled, *Have Agreed* to form ourselves, and do hereby form and unite ourselves into an amicable and brotherly society, to be called and known by the name of *The New Jersey Medical Society*. And for the better carrying our said good designs into execution, have voluntarily and unanimously consented to, ratified and confirmed the following Articles or Laws as the fundamental Constitution of our Association; which Constitution we do hereby engage, each for himself, to the whole, and to one

another, as far as possible, inevitably to observe and fully to submit to, as obligating on us.

"1stly. That we will never enter any house in quality of our profession, nor undertake any case, either in physic or surgery, but with the purest intention of giving the utmost relief and assistance that our art shall enable us, which we will diligently and faithfully exert for that purpose.

"2ndly. That we will at all times when desired, be ready to consult or be consulted by any of our brethren, in any case submitted to us. And that in all cases where we conceive difficulty, and circumstances will admit, we will advise and recommend such consultation.

"3rdly. That we will not pretend to or keep secret any nostrum or specific medicine of any kind, as being inconsistent with the generous spirit of the profession, but will at all times be ready to disclose and communicate to any member of the Society. any discovery or improvement, we have made in any matter respecting the healing art. Particularly we each engage that we will in all consultations, openly, freely, candidly and without reserve, give to each other our sincere opinion of the case, and of the means we think most likely to effect a cure.

"4thly. That we will on all occasions treat one another as becomes the medical character, and that each of us will respectively do our utmost to maintain harmony and brotherly affection in the Society, to promote the usefulness of it both to the profession and the public, and at all times to support the Institution and advance the dignity of medicine.

"5thly. That as we have separated ourselves to an office of benevolence and charity, we will always most readily and cheerfully, when applied to, assist gratis, by all means in our power, the distressed poor and indigent in our respective neighbourhoods, who may have no legal maintenance and support from their county; but where such legal provision takes place, there we shall expect a reasonable reward from the particular town or county to which such poor may belong.

"6thly. That we will hold meetings twice every year, at such time and place as the majority shall determine, at which meetings all matters not hereafter excepted or agreed to be otherwise particularly decided, shall be determined by a majority of votes, every member meeting on an equal footing; and each of us for himself engages punctually to attend the said half-yearly meetings, while he continues an inhabitant of this Province, under penalty of three pounds proclamation money, except in case of sickness, or other reasonable impediment to be judged and allowed of by the Society.

"7thly. That as the widely dispersed situation of the members of this Society will for the most part render a general meeting oftener than twice a year inconvenient, and yet to answer its important purposes a more frequent communication seems necessary. To remedy as much as may be this difficulty, it is agreed, that such members of this body, whose residence in respect of each other will allow, shall form themselves into less Associations, and shall meet at least once in two months, in order to converse on some medical subject, to communicate any particular observation, or otherwise to advance the general scheme. And that each of these less Societies shall keep minutes of their several proceedings, to be laid before the General Society at their meetings. And that every one of these smaller Societies shall have power to make such By-Laws for their own order and regulation as they shall judge proper, provided they are in nowise repugnant to the General Laws and Fundamentals of this Society. It is, nevertheless, hereby intended, that if any member or members are so particularly situated that he or they cannot conveniently give attendance at any such smaller Society, in such case the said member or members are to be exempted from the obligations of this article, and are left to his own selection in this matter. But it is expected that such members will frequent the meetings of some lesser Society as often as they reasonably can, in the manner of visiting brethren; and when anything worthy of notice occurs, that they will speedily and freely communicate to one of the said Societies.

"8thly. That at the half-yearly or general meetings, all such other laws and further regulations, as may from time to time be judged expedient or necessary, for promoting the good purposes of the Society, shall be constituted and established; and that the Society will then take into consideration all such other matters as may occur before them, either from the several inferior Societies, (which are to be esteemed as so many branches of this body), or proposed by individuals in any other proper way; and will proceed in such manner therein, as they shall deem most advancive of the designs of this Institution."

The 9th, 10th and 11th sections provide for the election of President, Secretary, and Treasurer, and their duties.

The 12th section provides for extraordinary meetings.

"13thly. That any gentleman hereafter desiring to become a member of this Society, shall at least one month before some general meeting signify his intention to the Secretary for the time being, who shall immediately notify the same to the several members; and the said candidate shall, at the ensuing meeting, be regularly balloted for by means of squares and triangles or such other device

as may be agreed on, and if upon examining the ballots, it shall appear that three-fourths of the members present voted in the affirmative, he shall be declared a member—otherwise not.

"14thly. That this Society shall not be dissolved but by the concurrence of seven-eighths of the whole body.

"Lastly this Society will do all in their power to discourage and discountenance all quacks, mountebanks, imposters, or other ignorant pretenders to medicine; and will on no account support or patronize any but those who have been regularly initiated into medicine, either at some University, or under the direction of some able master or masters, or who by the study of the theory and of the practice of the art, have otherwise qualified themselves to the satisfaction of this Society for the exercise of the profession.

"Given under our hands, at the city of New Brunswick, the twenty-third day of July, Anno Domini, 1766.

"ROBT. MCKEAN
CHRIS. MANLOVE
JOHN COCHRAN
MOSES BLOOMFIELD
JAMES GILLILAND
WM. BURNET
JONA. DAYTON

THOS. WIGGINS
WILLIAM ADAMS
BERN. BUDD
LAWRENCE V. DERVEER
JOHN GRIFFITH
ISAAC HARRIS
JOSEPH SACKETT, JR."

The meetings of the New Jersey Medical Society continued regularly until 1775, when they were interrupted by the war.

In November, 1781, they were again resumed.

At the meeting in May, 1782, Dr. Beatty read a report upon the "State of the Society since 1775," which was agreed to, and was as follows:

"That with regret we observe the vacation of six years in the Journal of this Society; and to prevent any reflections which might arise, unfavourable to its reputation in the minds of uninformed or disingenuous persons, it is thought necessary to assign here the cause and reason of the suspension in medical erudition.

"The war (which has been productive of the happy Revolution in America) having claimed the attention of all ranks of Freemen, most of the members of this Society took an early decided part in the opposition to British tyranny and oppression, and were soon engaged either in the civil or military duties of the State. Added to this, the local situation of the war (the scene of action being

chiefly in this and the adjoining States) rendered an attendance on the usual stated meetings, not only unsafe but in a great measure impracticable, from the scattered and distant residence of the members. Sensible, however, that improvements which would do honour to the most elevated understandings, are oftentimes hit upon by men of more confined abilities, and that in medicine, as well as in every other circumstance in life, it is our duty to avail ourselves as much as possible of all discoveries tending to the common benefit; as soon as sufficient order and harmony was restored to civil government and society, a convening of the members was deemed necessary and proper; as well to re-establish it upon its former liberal and reputable principles, as to place it under the patronage of the Authority of the State."

The meetings were continued with regularity until 1795, but from that date until 1807 there were no meetings. Dr. Wickes explains the reason for this. In June, 1790, a new medical society had arisen, "The Medical Society of the Eastern District of New Jersey." Its origin was largely due to the efforts of Dr. Micheau, and its foundation was vehemently opposed by the older organization, because a majority of the members of the old society were drawn from Essex and the adjacent counties, which were included in the Eastern District of New Jersey. At one of the meetings of the New Jersey Medical Society the following minute is recorded:

"It being represented that Dr. Micheau has taken an active part in originating and establishing a Society in the County of Essex, new and independent of this corporation, and the Board deeming his conduct as a member of this Society very reprehensible—Ordered, that the Secretary write to Dr. Micheau and enclose him a copy of this minute, and require his attendance at the next stated meeting to answer in the premises."

The new society, though very successful for a few years, became defunct in 1807, and in that year the Medical Society of New Jersey revived its meetings.

Shortly after its foundation, in 1776, the New Jersey Medical Society appointed a committee to consider the

shall interpose, or some other happier method be devised for determining a matter so interesting both to the public and the profession.

"A TABLE OF FEES AND RATES.

"For sundry articles and services in medicine and surgery, as agreed on and established by the New Jersey Medical Society, at their general meeting in New Brunswick, July 23rd, 1766.

"PROCLAMATION MONEY.

	£	s.	d.
Visits in towns. Visiting in towns, whereby the physician and surgeon can readily attend the patient without riding, to be charged for according to the duration of the ailment and degree of attendance. viz.: in slight cases whereby a visit or two may be wanted.....	0.	00. (?)	0.
Per Week. In other cases requiring longer and daily care and attendance; for each week's attendance, and in proportion for lesser or more time, exclusive of medicines.....	0.	10.	0.
* Visits in the Country { Visits in the Country under half a mile to be charged for as in towns, viz., per week, &c.....	0.	10.	0.
Above $\frac{1}{2}$ a mile & not more than $1\frac{1}{2}$ { Every visit above a mile and not exceeding a mile and a half.....	0.	1.	6.
Above $1\frac{1}{2}$ & not more than 15 { Every visit above fifteen half miles and not exceeding fifteen miles, for each mile additional.....	0.	1.	0.
Above fifteen & not more than 25 { Every visit above fifteen miles and not exceeding twenty-five miles, for each mile above fifteen and under twenty-five.....	0.	1.	6.
Above 25. Every visit above twenty-five miles, for each mile above twenty-five.....	0.	2.	0.
Every visit in the night; exclusive of other things..	0.	5.	0.
Consultations. Consultation Fees, viz., Every first visit and opinion by the consulted physician or surgeon, exclusive of traveling fees.....	0.	15.	0.
Every succeeding visit and advice by do. &c.....	0.	7.	6.

	£	s.	d.
Surgical operations and services { Fees for surgical operations and services, exclusive of visits and traveling charges, viz.:			
Phlebotomy	0.	1.	6.
Extracting a tooth.....	0.	1.	6.
Cutting an issue.....	0.	2.	0.
Cupping with scarification.....	0.	2.	0.
Wounds. As first dressings of all large or deep incised or contused wounds, including ung'ts &c., except in very extraordinary cases, where the surgeon shall consult the Society, who will adjudge the proper charge in such particular cases	0.	7.	6.
Succeeding dressings of do., each time.....	0.	2.	0.
Sinuses and Abscesses { Opening large sinuses or abscesses and first dressing..	0.	7.	6.
Succeeding dressing of do., each	0.	3.	0.
Inflammations. Advice for large inflammations and abscesses, when attended twice a day, per week, and proportionably for a greater or less time	0.	10.	0.
Do. when attended once a day, per week, &c...	0.	5.	0.
Ulcers. Dressing all malignant, putrid or phagedænic ulcers, each dressing.....	0.	2.	0.
Dressing small cutaneous or superficial wounds, small and healing ulcers and small abscesses, each dressing.....	0.	1.	0.
Opening small abscesses and sinuses.....	0.	2.	0.
Drawing off the urine by the catheter, each time	0.	7.	6.
Administering a clyster.....	0.	3.	9.
Trepan. Operation of the trepan.....	3.	00.	0.
Dressing each time.....	0.	3.	9.
Couching, &c. Couching or extracting the cataract	3.	00.	0.
Cutting the Iris.....	3.	00.	0.
Fistula Lachrymalis.....	1.	10.	0.
Each dressing do.....	0.	1.	6.
Bronchotomy	1.	10.	0.
Extirpation of the Tonsils	1.	10.	0.
Extraction of the polypus of the nose.....	1.	00.	0.
Operation of the Hare-lip.....	1.	10.	0.
Operation for the Wry-neck.....	1.	10.	0.
Each dressing in the five preceding cases.....	0.	1.	6.

	£	s.	d.
Amputations. Amputation of the breast.....	3.	00.	0.
Ditto of the fore and back arm.....	3.	00.	0.
Ditto of the leg and thigh.....	3.	00.	0.
Each dressing for the first 14 days after the preceding amputations.....	0.	5.	0.
Each succeeding dressing.....	0.	2.	6.
Amputation of the fingers, or toes, each.....	0.	15.	0.
Each dressing do.....	0.	2.	0.
Suture of the tendons and Gastroraphy, each..	1.	00.	0.
Each dressing do.....	0.	2.	6.
Bubonocoele Epiplocele and Hernia Femoralis, each	3.	00.	0.
Each dressing do.....	0.	5.	0.
Exomphalos and Hernia Ventralis.....	1.	10.	0.
Each dressing.....	0.	2.	0.
Hydrocele, Radical operation.....	3.	00.	0.
Ditto, palliative by puncture.....	1.	10.	0.
Castration, each Testicle.....	3.	00.	0.
Each dressing do.....	0.	5.	0.
Phymosis and paraphymosis.....	0.	7.	6.
Each dressing.....	0.	2.	0.
Paracentesis	1.	10.	0.
Fistula in ano, deep, sinuous and of long stand- ing	3.	00.	0.
Do. small and recent.....	2.	00.	0.
Each dressing in such Fistulas.....	0.	3.	0.
Empyema	1.	00.	0.
Each dressing do.....	0.	2.	0.
Extirpation of small encysted and small can- cerous Tumors.....	1.	10.	0.
Each dressing do.....	0.	1.	6.
Cutting for the stone in the bladder.....	5.	00.	0.
Each dressing do.....	0.	5.	0.
Cutting for the stone in the urethra.....	1.	10.	0.
Each dressing do.....	0.	2.	0.
Assistant Surgeon's fee in all operations			
Midwifery, viz., Delivering a woman in a natural case	1.	10.	0.
In a preternatural case.....	3.	00.	0.
In a labourious case, requiring forceps or extri- cation with the crotchet, &c.....	3.	00.	0.
Inoculation. Inoculation of the small pox including medicine and attendance.....			

	£	s	d
Reduction of a simple fracture and depression of the nose, with necessary dressing during the cure.....	1	7	0
Location or fracture of the lower jaw, with ditto	1	00	0
Location of the neck, with ditto.....	2	00	0
Location of the Humerus, and ditto.....	1	10	0
Ditto of the Cubit and do.....	1	10	0
Simple fracture of the Clavicle, and do.....	1	10	0
Ditto of the fore and back arm, and do.....	1	10	0
Dislocation or fracture of the wrist bones, with do	1	10	0
Dislocation of the thigh bone, with ditto.....	2	00	0
Ditto of the knee, with do.....	1	10	0
Ditto or fracture of the Patella, with do.....	0	15	0
Ditto of the ankle, with do.....	1	10	0
Simple fracture of the thigh or leg bones, with do	2	00	0
Simple ditto of the heel, with ditto.....	1	10	0
Dislocation of the fingers or toes, with do.....	0	7	6
Compound fractures of all kinds, one-third more than simple, besides the daily dressing, which is to be charged at the rate fixed for large wounds, when the fracture is of the thigh, leg or arm; but at the rate of small wounds when of the fingers or toes, &c.			
Other surgical cases not here mentioned, either to be proposed to the Society for their decision, or to be charged as nearly to the tenor of this table as possible.			
Rates of extemporaneous forms of medicine, exclusive of visiting and traveling fees, viz:			
Bolus Cathartic or emetic.....	0	2	0
Ditto with musk.....	0	3	0
Every other do. alternative for persons above years of age.....			
Decoction with one ounce Cort. Peruv. and proportionably with greater or less quantity....	0	7	6
Other decoctions and wines made with foreign medicaments, per pound.....	0	7	6
Do. with indigenous or native medicines, per pound	0	3	0
Draughts, each.....	0	2	2
Electuary Cathartic, per ounce.....	0	7	6

	£	s.	d.
Do. Alternative, per ounce.....	0.	5.	0.
Elixirs and Essences, per ounce.....	0.	3.	9.
Emulsions	0.	1.	0.
Epispastic plasters for the neck, side or back.....	0.	3.	0.
Do. for the anus, wrists or legs, each.....	0.	1.	6.
Each dressing of the large blisters.....	0.	1.	0.
Each do of the lesser.....	0.	0.	6.
Ingredients for nitrous decoctions, 1 pound.....	0.	7.	6.
Ingredients foreign for other decoctions, &c., per oz.	0.	2.	0.
Ditto for Clysters.....	0.	3.	0.
Musk Jalap.....	0.	2.	6.
Jalaps, per ounce.....	0.	1.	0.
Linctus and Lotions, per ounce.....	0.	2.	6.
Lozenges, per ounce.....	0.	3.	0.
Mixtures compounded of aqueous and spirituous, and Saline or solid substances, per ounce.....	0.	1.	0.
Mixtures compounded of aqueous and spirituous, such as Tinctures, Elixirs, Essences, &c. per oz.	0.	3.	9.
Ointments, viz. Mere-fort, per ounce.....	0.	2.	6.
Do. nit., per ounce.....	0.	2.	0.
Pills, viz. Cathart., one dose.....	0.	2.	0.
Mercur., per dose.....	0.	1.	6.
Anodyn, per dose.....	0.	1.	0.
Alternative, per dose.....	0.	2.	0.
Potioni cathart., with manna, per ounce.....	0.	4.	0.
Powders, Cathart { Rhubarb, per dose.....	0.	3.	0.
viz, { All others, per dose.....	0.	2.	0.
Powders Emetic, per dose.....	0.	2.	0.
Do. Alternative, per dose.....	0.	1.	0.
Salts Cathartic, per dose.....	0.	1.	6.
Do. with manna, 1 ounce, per dose.....	0.	3.	0.
Tartar Cream of, per dose.....	0.	1.	6.
All medicines charged by the dose to persons under three years of age one-fourth less than to those above that age.			
Tinctures, per ounce.....	0.	3.	0.
Salivation, including medicines.....	3.	00.	0.
Simple Gonorrhœa, includ. do.....	2.	5.	0.
Gonorrh. attended with Chancres, or particular trouble	3.	00.	0.

"All other prescribed forms not here specified, to be submitted to the direction of the Society, and rated as near as possible to the

tenor of this Table. The Society reserves to themselves the right, at all times hereafter, of making all such alterations in and additions to this Table, as shall appear to them just and expedient.

"ROBT. MCKEAN, President.

"Resolved and enacted. That every member of this Society, shall at all times hereafter, when he makes out a bill, charge exactly agreeable to the preceding fixed rates, without addition or diminution, and shall deliver it in this form and no other. But it is nevertheless meant and intended, that every member afterwards be at liberty to abate what part of such bills he may think proper, on account of poverty, friendship, or other laudable motives, but on no other consideration whatever, under pain of expulsion."

A Medical Society of New York.

Wickes⁷ quotes from Dr. Peter Middleton's "Introductory lecture at the Opening of the Medical School in King's College," in November, 1769, his mention of the "institution of Societies," or "well-regulated Associations of Gentlemen" for the advancement of the profession, and the doctor's remark, "And permit me to add as one of the many instances of the utility of these societies, that whatever merit there is in the present *Institution*, it was first planned and concluded upon in a *Medical Society* now subsisting in this place; and *May It Long Subsist*."

Dr. Wickes thought this society to be identical with that in existence in 1749, but it would seem that there is too great a hiatus in our knowledge of the existence of a society to warrant a belief that one had remained in continuous being through all those years. It is hardly likely that it would remain totally unnoticed in contemporary medical annals.

In the Library of the New York Academy of Medicine Wickes found a manuscript book of minutes, called

⁷ Loc. cit.

"Minutes of the Medical Society of the State of New York, from Nov. 14, 1794, to July 8, 1806." It begins as follows: "A number of Medical Gentlemen wishing to associate for the purpose of promoting friendly professional intercourse, determined to meet at the City Hall, on the evening of Nov. 14, 1794, when there appeared," following which are the names of eighteen physicians. Then "After some conversation on the subject of the meeting, it was unanimously resolved that the present associates will, on the dissolution of the Society known by the name of the 'Medical Society,' form themselves into a Society by the name and style of the Medical Society of the State of New York, and that they will use the seal of the same."

Hence it would appear that the Medical Society of the State of New York is the immediate and legitimate descendant of the medical society mentioned by Dr. Middleton in his address.

In 1806 this "Medical Society of the State of New York" became the "Medical Society of the County of New York."

The American Medical Society.

In the *Universal Asylum and Columbian Magazine* for April, 1790, we find the following account of the American Medical Society:

"AN ACCOUNT OF THE AMERICAN MEDICAL SOCIETY.

"In the year 1773 a number of students who had assembled in the city of Philadelphia, from different parts of the Continent, to hear the Lectures of the Medical Professors, thought that they might derive some advantage from associating themselves, in order to discuss various questions in the healing art, and to communicate to each other their observations on different subjects. Such associations had been found highly beneficial to the students of medicine in Europe, and it was thought might be still more so in a country,

the diseases and remedies of which had not been fully explored. These ideas gave rise to the American Medical Society, which now ranks among its members many of the most respectable medical characters on this Continent.

"The object of this Society is the promotion of medical science in general, by collecting materials for accurate histories of diseases as they appear in this country, by recording even anomalous cases, which may have a tendency to throw light upon the nature of a particular disease, or upon some part of the animal economy, by pointing out the effects and uses of new remedies or of those which have been already in use, by explaining the nature of various processes of the animal economy, and in short by recording and preserving whatever may have a tendency to give more accurate ideas of the nature of diseases and of the means of removing them.

"The essays which have from time to time been read before the society, have amounted to a considerable number. As it was thought that the publishing of some of them would extend the benefits of the Society beyond its more immediate members, a committee was appointed to select such essays as might appear worthy of public notice. The Constitution is now published in order to show the nature of the Society, and in some measure to serve as an introduction to subsequent publications.

"CONSTITUTION OF THE AMERICAN MEDICAL SOCIETY.

"ART. 1. The Society shall be called the American Medical Society.

"ART. 2. It shall consist of Senior and Junior members.

"ART. 3. The officers shall be a President, a Vice-President, a Treasurer and a Secretary, to be chosen by ballot on the 1st Monday in November annually. There shall also be a Perpetual Secretary. The President, Treasurer and Perpetual Secretary, shall be elected from amongst the Senior members, the Vice-President and Annual Secretary from amongst the Juniors.

"ART. 4. The President, or, in his absence, the Vice-President, or oldest Junior member present, shall regulate the business of the meeting, and where the voices are equal he shall give the casting vote.

"The Treasurer shall collect the contributions and fines due from the members, and at the close of every session shall render an exact account of his receipts and disbursements. He shall be a resident in the city.

"The Perpetual Secretary shall perform the office of Librarian, and shall preserve the seal, and all communications made to the Society. He shall be a resident in the city.

"The Annual Secretary shall keep exact minutes of the transactions of the Society, shall collect ballots, notify the election or rejection of candidates, and introduce them, when elected, to the President.

"ART. 5. The election of every candidate shall be by ballot. All candidates must have been proposed at least one week before they can be balloted for, and for their admission the concurrence of two thirds of the members present shall be necessary. No candidates for Junior membership shall be proposed except from the first of November to the last of January following inclusive. Any member who divulges the proposal or rejection of a candidate, shall be expelled.

"ART. 6. Candidates for Senior members must be persons distinguished for medical knowledge. Those who have been two years Junior members, and such as during that time graduate in medicine, shall become Senior members without any further election.

"ART. 7. Candidates for Junior membership shall read and defend before the Society a dissertation on some philosophical subject connected with medicine.

"ART. 8. Every Junior member on his admission shall sign this Constitution in testimony of his consent to be governed thereby. He shall receive a certificate of his membership signed by the President and sealed with the seal of the Society. He shall pay into the hands of the Treasurer, annually, the sum of two dollars.

"ART. 9. A majority of the Junior members residing in the city, together with the Seniors then present shall constitute a quorum competent to the transaction of all business.

"ART. 10. At every stated meeting, when no candidates offer, one or more medical cases or dissertations shall be read by Junior members in rotation, the subject of which shall be at the choice of the reader, who shall answer to the free and candid examination of the members, any of whom may join with him in support of his sentiments.

"ART. 11. A correct copy of every dissertation or case read before the Society shall be delivered to the Secretary, within two weeks after being read.

"ART. 12. The Society shall meet on the 1st Monday in November annually, a notification of which shall be made by the Secretary in the public papers. Meetings shall afterwards be held weekly until the second Monday in February following.

"ART. 13. In order to the partial or total repeal or amendment of this Constitution, a proposal to that purpose must be given to the President in writing, be read by him to the Society, and entered upon the minutes two weeks before it shall be taken up for

THE HISTORY OF MEDICINE

By the Author
 JOHN PURNELL
 M.D.
 F.R.S.
 F.R.C.P.
 F.R.S.E.
 F.R.S.M.
 F.R.S.N.
 F.R.S.A.
 F.R.S.L.
 F.R.S.I.
 F.R.S.D.
 F.R.S.P.
 F.R.S.C.
 F.R.S.G.
 F.R.S.H.
 F.R.S.K.
 F.R.S.L.
 F.R.S.M.
 F.R.S.N.
 F.R.S.P.
 F.R.S.Q.
 F.R.S.R.
 F.R.S.S.
 F.R.S.T.
 F.R.S.U.
 F.R.S.V.
 F.R.S.W.
 F.R.S.X.
 F.R.S.Y.
 F.R.S.Z.

... of the American
 ... papers subsequently
 ... the various numbers of the
Columbian Magazine along with
 "Thoughts upon Female Education," "
 "The Influence of
 "The Sense of Beauty," and historical an
 "King of Prussia or the American Revolution.
 "On some Snow Melting on a Lady's Bosom"
 "hearing a Lady lament the short lived pleasure of
 "and quick decay of beauty," and correspondence, of
 as samples may be selected "A Letter, containing p
 cal and literary information, (by a gentleman in L
 don)," and "A Letter, on simplicity in Manners, and th
 importance of religious opinions, (by a gentleman in
 Wilmington)."

In the number for May, 1790, we find an article enti
 tled "Two Cases of Hepatitis, read before the American
 Medical Society, January 27th, 1787, by Mr. John Pur
 nell of Maryland." In one of these cases an autopsy re
 vealed the correctness of the diagnosis. The other case
 recovered, but, "about a year and a half after, necessity
 and domestic unhappiness drove him to the pernicious
 custom of drinking rum, which in a very short time ter
 minated his existence."

In the *Columbian Magazine* for July, 1790, Samuel

Knox, of York County, Pennsylvania, published "A Case of Scrophula; read before the American Medical Society, January 7, 1785." The man was a patient in the Pennsylvania Hospital.

A Medical Society composed of Harvard Students.

In 1771 there were a number of students at Harvard College interested in anatomical studies who formed themselves into an "Anatomical Society," which held private meetings for the discussion of medical subjects and were very proud of the skeleton which was in their possession. There are no records of this Society's proceedings extant, and the few facts we know regarding it can hardly justify its consideration among the more serious efforts at organization by medical men.

The Boston Medical Society.

On the 14th of May, 1780, a meeting of physicians was held in Boston, and they constituted themselves the Boston Medical Society. Chief among them were Drs. Samuel Danforth, Isaac Rand, Jr., Thomas Kast, and John Warren. The object of the Society was to regulate physicians' fees. The war, now drawing to a close, had upset all business transactions out of their former routine, and the high prices of the necessities of life as well as the depreciated currency then in circulation required a change in the modes of payment which had prevailed before the war. Most of the men who were members of the Boston Society were also prominent in founding the Massachusetts Medical Society.

The Massachusetts Medical Society.

The Massachusetts Medical Society was founded in 1781. Its history has been very fully written by the

Hon. Josiah Bartlett in "An Historical Sketch of the progress of Medical Science in the Commonwealth of Massachusetts, being the substance of a discourse read at the annual meeting of the Medical Society, June 6, 1810, with alterations and additions, to January 1, 1813,"⁸ and by Dr. Samuel Abbott Green in "A Centennial Address delivered before the Massachusetts Medical Society, at Cambridge, June 7, 1881."⁹ From their accounts I have drawn in the subsequent pages.

The Society was incorporated in 1781 by the following act:

"COMMONWEALTH OF MASSACUHUSETTS

"In the Year of our Lord 1781

"An Act to incorporate certain *Physicians* by the Name of *The Massachusetts Medical Society*.

"As health is essentially necessary to the happiness of society; and as its preservation or recovery is closely connected with the knowledge of the animal economy, and of the properties and effects of medicines; and as the benefit of medical institutions, formed on liberal principles, and encouraged by the patronage of the law, is universally acknowledged;

"Be it therefore enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, That, Nathaniel Walker Appleton, William Baylies, Benjamin Curtis, Samuel Danforth, Aaron Dexter, Shirley Ewing, John Frink, Joseph Gardner, Samuel Holten, Edward Augustus Holyoke, Ebenezer Hunt, Charles Jarvis, Thomas Kast, Giles Crouch Kellogg, John Lynn, James Lloyd, Joseph Orme, James Pecker, Oliver Prescott, Charles Pynchon, Isaac Rand, jun., Micajah Sawyer, John Sprague, Charles Stockbridge, John Barnard Swett, Cotton Tufts, John Warren, Thomas Welsh, Joseph Whipple, William Whiting, be, and they hereby are formed into, and constituted a body politic and corporate, by the name of The Massachusetts Medical Society; and that they and their successors, and such other persons as shall be elected in the manner hereafter mentioned, shall be and continue a body politic and corporate by the same name forever.

⁸ Massachusetts Historical Society's Collection, second series, vol. i. p. 105.

⁹ Published at Boston by A. Williams and Co., 1881.

"And be it enacted by the authority aforesaid, That the fellows of said society may from time to time elect a president, vice-president, and secretary, with other officers as they shall judge necessary and convenient; and they the fellows of said society, shall have full power and authority from time to time, to determine and establish the names, number and duty of their several officers, and the tenure or estate they shall respectively have in their offices; and also to authorize and empower their president or some other officer to administer such oaths to such officers as they, the fellows of said society, shall appoint and determine for the well ordering and good government of said society, provided the same be not repugnant to the laws of this commonwealth.

"And be it enacted by the authority aforesaid, That the fellows of said society shall have one common seal, and power to break, change and renew the same at their pleasure.

"And be it enacted by the authority aforesaid, That they, the fellows of said society, may sue and be sued in all actions, real, personal or mixed, and prosecute and defend the same into final judgment and execution, by the name of The Massachusetts Medical Society.

"And be it enacted by the authority aforesaid, That the fellows of said society may from time to time elect such persons to be fellows thereof, as they shall judge proper; and that they, the fellows of said society, shall have power to suspend, expel or disfranchise any fellows of said society.

"And be it enacted by the authority aforesaid, That the fellows of said society shall have full power to make and enact such rules and bye laws for the better government of said society, as are not repugnant to the laws of this commonwealth; and to annex reasonable fines and penalties to the breach of them, not exceeding the sum of twenty pounds, to be sued for and recovered by said society, and to their own use, in any court of record within this commonwealth proper to try the same, and also to establish the time and manner of convening the fellows of said society; and also to determine the number of fellows that shall be present to constitute a meeting of said society; and also that the number of said society, who are inhabitants of this commonwealth, shall not at any one time be more than seventy, nor less than ten; and that their meetings shall be held in the town of Boston, or such other place within this commonwealth, as a majority of the members present in a legal meeting, shall judge most fit and convenient.

"And whereas it is clearly of importance, that a just discrimination should be made between such as are duly educated and properly qualified for the duties of their profession, and those who

may ignorantly and wickedly administer medicine, whereby the health and lives of many valuable individuals may be endangered, or perhaps lost to the community;

"Be it therefore enacted by the authority aforesaid, That the president and fellows of said society, or such of their officers or fellows as they shall appoint, shall have full power and authority, to examine all candidates for the practice of physic and surgery, (who shall offer themselves for examination, respecting their skill in their profession) and if upon such examination, the said candidates shall be found skilled in their profession, and fitted for the practice of it, they shall receive the approbation of the society, in letters testimonial of such examination, under the seal of the said society, signed by the president, or such other person or persons as shall be appointed for that purpose.

"And be it further enacted by the authority aforesaid, That if the said president, and such other person or persons, so elected and appointed for the purpose of examining candidates as aforesaid, shall obstinately refuse to examine any candidate so offering himself for examination as aforesaid, each and every such person so elected and appointed as aforesaid, shall be subject to a fine of One hundred pounds, to be recovered by the said candidate, and to his own use, in any court within this commonwealth proper to try the same.

"And be it further enacted by the authority aforesaid, That the fellows of said society may, and shall forever be deemed capable in law, of having, holding and taking in fee simple or any less estate by gift, grant or devise or otherwise, any land, tenement or other estate, real or personal; provided the annual income of the whole real estate that may be given, granted or devised to, or purchased by the said society, shall not exceed the sum of two hundred pounds, and the annual income or interest of said personal estate, shall not exceed the sum of six hundred pounds; all the sums mentioned in this act to be valued in silver at six shillings and eight pence per ounce; and the annual income or interest of the said real and personal estate, together with the fines and penalties paid to said society, or recovered by them, shall be appropriated to such purposes as are consistent with the end and design of the institution of said society, and as the fellows thereof shall determine.

"And be it further enacted, That the first meeting of the said Medical Society shall be held in some convenient place in the town of Boston; and that Edward Augustus Holyoke, Esq., be, and he hereby is, authorised and directed to fix the time for holding the said meeting, and to notify the same to the fellows of said Medical Society.

"IN THE HOUSE OF REPRESENTATIVES, October 30, 1781

"This bill having had three several readings, passed to be enacted.

"NATHANIEL GORHAM, Speaker.

"IN SENATE, November 1, 1781.

"This bill having had two several readings, passed to be enacted.

"SAMUEL ADAMS, President.

"A true copy

Approved JOHN HANCOCK.

"Attest

"JOHN AVERY, JUN., Secretary."

In *The Boston Gazette and the Country Journal*" for November 17, 1781, Dr. Holyoke published a notice calling a meeting of the Society, as directed by its act of incorporation. This meeting was held in the County Court-House, in Boston, on November 28, 1781, and there were present at it nineteen of the thirty-one corporators. Dr. Holyoke was elected president, Dr. Isaac Rand, Jr., secretary, and Dr. Thomas Welsh, treasurer, all of the appointments being merely *pro tem*.

At the third meeting of the Society, held on June 5, 1782, a permanent organization was effected and the following officers elected:

President, Edward Augustus Holyoke, Esq.

Vice-President, Dr. James Pecker.

Counsellors,	{	Dr. Samuel Danforth,
		Dr. Joseph Gardner,
		Hon. Samuel Holten, Esq.,
		James Lloyd, Esq.,
		Dr. Isaac Rand, Jun.,
		Hon. Cotton Tufts.

Corresponding Secretary, Dr. John Barnard Swett.

Recording Secretary, Dr. Nathaniel Walker Appleton.

Treasurer, Dr. Thomas Welsh.

Vice-Treasurer and Librarian, Dr. Aaron Dexter.

Censors, {
 Dr. Samuel Danforth,
 Dr. Charles Jarvis,
 Dr. Joseph Orme,
 Hon. Cotton Tufts, Esq.,
 Dr. John Warren.

The Society adopted as its seal "A Figure of Æsculapius in his proper habit pointing to a wounded Hart nipping the Herb proper for his Cure," with the motto "natura duce."

The presidents of the Society were as follows:

- | | |
|-----------------------------|---------------------------|
| 1. Edward A. Holyoke. | 5. Samuel Danforth, 1795. |
| 2. Wm. Kneeland, 1784. | 6. Isaac Rand, 1798. |
| 3. Edward A. Holyoke, 1786. | 7. John Warren, 1804. |
| 4. Cotton Tufts, 1787. | |

The vice-presidents during the same period were,—

- | | |
|---------------------------|-------------------------|
| 1. James Pecker, 1782. | 6. Isaac Rand, 1797. |
| 2. Cotton Tufts, 1785. | 7. Ebenezer Hunt, 1798. |
| 3. Isaac Rand, Sr., 1787. | 8. John Warren, 1800. |
| 4. Samuel Danforth, 1790. | 9. Joshua Fisher, 1804. |
| 5. Samuel Holten, 1795. | |

In 1785 the Society appointed corresponding and advising committees for the different counties of Massachusetts in which medical associations were formed to promote professional intercourse and progress.

In 1789 the Society prescribed the studies necessary to a candidate for their license to practise. They ordained that every candidate must have a competent knowledge of Greek, Latin, the principles of geometry, and experimental philosophy, and that the period of instruction should in no case be less than three years, with attendance on the practice of a reputable physician. A subsequent by-law adopted as a regulation that after the 4th of June, 1813, no candidate should be admitted to an examination unless he had previously studied with, and attended the

practice of a fellow or honorary member of the Society. The Society made triennially publications of authors to be studied, by which the most modern valuable contributions to medical science were circulated. The censors met for the examination of candidates for licenses once every four months. The first license was granted in 1782.

In 1790 the Society issued a number of "Medical Papers." For want of funds the second volume did not make its appearance until 1806. The third appeared in 1808. These three numbers completed the first volume of the series of "Medical Communications of the Massachusetts Medical Society."

In March, 1803, the Society had an act passed by the Legislature which allowed them to admit any number of persons to fellowship, instead of limiting the membership to seventy, as had been done by the act of incorporation.

In 1808 Drs. James Jackson and John Collins Warren published a *Pharmacopœia* with the official sanction of the Society, its object being to introduce a uniform nomenclature and to bring about greater uniformity in physicians' prescriptions.

In 1810 Dr. James Thacher published "The American New Dispensary," also with the official sanction of the Society, having as its basis the *Pharmacopœia* of Jackson and Warren.

In the year 1831 the Society began the publication of "The Library of Practical Medicine," consisting of reprints of famous foreign works on medicine, as well as of works by its members. This useful series numbered twenty-five volumes before the Society stopped its publication in 1868.

"The Publications of the Massachusetts Medical So-

ciety" began in 1860, and were continued until 1871. They consist of reports of cases and papers read at the Society's meetings, which are comprised in three published volumes. After 1871 papers of this character were printed in the Society's "Communications."

The Medical Society of New Haven County and the Connecticut State Medical Society.

As early as the year 1763 we find the physicians of Norwich, Connecticut, attempting to organize themselves, and petitioning the General Court of the colony of Connecticut for an act of incorporation giving the physicians of the colony a right to meet in a body and adopt measures to regulate the practice of medicine in the colony.

The memorial is so interesting that I have reprinted it:

"TO THE HONOURABLE GENERAL ASSEMBLY OF THE COLONY OF CONNECTICUT to be Held at New Haven the second Thursday of October next—The Memorial of us the Subscribers Physicians in said Colony Humbly sheweth That whereas life is the most Desirable of all Sublunary Enjoyments and Health so invaluable a Blessing that without it in some Degree Life is little Worth and that the Promoting Medical Knowledge among Physicians is the Necessary and direct means to Restore health and even Preserve Life and is of great Importance as it will Render The Practice of Physic more safe and Serviceable to the Patient and at the same time yeald more Satisfaction and Honour To the Profession—

"And whereas more than one hundred years have already passed away since the Planting this Colony and Nothing has been Publickly done to Distinguish between the Honest and Ingenuous Physician and the Quack or Emperical Pretender by Reason of which Imposture and Imposition has been and is still but too Commonly Practised among us to the great Injury of the People as well as the Disparagement of the Profession—We your Honours Memorialists would therefore humbly pray your Honours to Take the Matter under your wise Consideration and Order & Enact that the Physicians in each County in this Colony for their Mutual Edification and Instruction have Liberty and power To meet Together in their Respective Counties at such time and Place as they shall

Appoint once in three months and at the First of such their Meetings choose a Committee of three or More approved Physicians to Continue for the space of one year and Annually to be Chosen such Committee for the time Being to have full power to Examine and if found duly Qualified Approve such Candidates for the Practice of Physic who shall offer Themselves for Examination and if any Person offering himself Shall be Adjudged not Qualified and so not approved by such Committee that such Person may apply himself to any County and be there Examined And Determined by such meeting and Approved of if they think Fit by Proper Certificate and that for the future no Person or Persons that are not Already deemed Physicians who shall pretend to Practise Physic without such Approbation first had And Obtained Appearing by Proper Certificate be Allowed to Bring or Maintain any Action against any Person or Persons To Recover any Debt Demand or other thing for any service he or they shall Pretend to have done or Presumed as a Physician—Or otherwise Enact and order some proper regulation for the Practice of Physic as in your Wisdom shall be thought most Proper And as in Duty bound Shall ever Pray

"THEOPHILUS ROGERS

JOSHUA DOWNER

CYRIL CARPENTER

PHP. TURNER

OBADIAH KINSBURY

JOSHUA PERKINS Physician

ELISHA TRACY

MOSES MORRIS

JOHN BARKER

ELISHA LORD

EBENEZER ROBINSON

"Dated at Norwich The 27th day of Sept^r 17⁶³

"In the Lower House

"The Question was put whether any thing should be granted on this Memorial—

"Resolved in the Negative

"Test ABR^m DAVENPORT Clerk."

In 1766 an attempt to effect the same object was made by the physicians of Litchfield County. This likewise was abortive.

On April 12, 1774, a notice was inserted in the *Connecticut Courant* calling on the physicians of New London County to meet and form an organization for the purpose of procuring legislation on medical matters. A similar notice appeared in the same paper in April for the Hartford County physicians.

In the *Courant* for September 14, 1779, the following was published:

"Resolution passed at a meeting of Phys from Mass., York, & Conn. States.

"The end of society is the common welfare & the good of the people associated. The end of this meeting is to form a Medical Society, to unite its members in a cordial affection, to add life and vigour to the healing art—to suppress quackarism [*sic*] & encourage medical knowledge & virtue . . . One of the greatest evils mankind suffer is disease & 2ndly the miserable ignorant & injudicious application of medicine. Imagine a person groaning under the pangs of some disease or the anguish of some wound. An ignorant pretender is called in for assistance by whose application the patient instantly expires or a foundation laid that the patient spins out a miserable existence. . . .

"To form rules quadrate with the rights of mankind in general & this Soc. in particular will be the design of this meeting & to adopt such rules as the society agree to &c &c—where upon we resolve 1st That this meeting shall be known by the name of the Medical Society of Sharon.

"2nd That we will choose a president & clerk &c (accord'g to the usual forms of organization)

"Dated at Sharon July 5, 1779

"OLIVER TULLER, Clk

"N. B.

"Any Gentlemen of the Faculty that are disposed to join this Med. Soc. will meet with a kind reception on the last Tuesday of Sept next or on any of our future meetings."

All the above-mentioned organizations proved very ephemeral in character, but in 1784 was formed the Medical Society of New Haven County. This Society possesses the proud distinction of publishing the first volume of transactions ever issued by a medical society in the United States. This volume was published under the title "Cases and Observations by the Medical Society of New Haven County in the State of Connecticut, Instituted in the Year 1784—Published in 1788."

The preface states that

"a number of Physicians in the city and county of New Haven stimulated by the importance of the object, and the laudable example of the faculty in the various nations of Europe, and in some parts of America, formed a society in the year 1784, for the purpose of improving themselves in Medical Knowledge."

The volume contains one cut, of a deformed foetus, and twenty-six papers with the following titles:

Article I. Case of singultus from an adhesion of the Liver to the Diaphragm, proving fatal. Communicated by Dr. Samuel Nesbitt, F.M.S.

Article II. Case of Puerperal Fever successfully treated. Communicated by Dr. Elnathan Beach, F.M.S.

Article III. Two cases of difficult Deglutition from extraneous bodies lodged in the Gula. By Dr. Abraham Tomlinson, F.M.S.

Article IV. Case of a Fractured cranium successfully treated. By John Spalding, Surgeon, F.M.S.

Article V. Case of a Gangrene of the Scrotum. By Dr. Leverett Hubbard, F.M.S.

Article VI. Case of Lock'd Jaw successfully treated by Electricity. By Dr. Eneas Munson, F.M.S.

Article VII. Case of an Hæmatemesis successfully treated. By Dr. Samuel Nesbitt, F.M.S.

Article VIII. Case of an Enteritis — Communication. By Dr. Ebenezer Beardsly, F.M.S.

Article IX. Case of a deformed Foetus, with a cut. Communicated by Dr. Leverett Hubbard, F.M.S.

Article X. Case of the fatal effects of the corrosive sublimate of Mercury. By Dr. Levi Ives, F.M.S.

Article XI. Case of the fatal effects of drinking cold water when heated. By Dr. Samuel Nesbitt, F.M.S.

Article XII. Case of an Asthenia from an extraordinary cause. By Dr. Samuel Nesbitt, F.M.S.

Article XIII. Case of an Hydrocephalus Internus. By Dr. Ebenezer Beardsly, F.M.S.

Article XIV. Case of a Scirrhus Tumour in the Pylorus. By Dr. Ebenezer Beardsly, F.M.S.

Article XV. Case of a singular wound in the Eye. By John Spalding, Surgeon, F.M.S.

Article XVI. Case of a Peripneumony. By Dr. Ebenezer Beardsly, F.M.S.

Article XVII. Case of an amputation of the leg in consequence of a divided artery. By John Spalding, Surgeon, F.M.S.

Article XVIII. A letter from Dr. Humphrey Gale, F.M.S., on the bite of a mad dog. Communicated by Dr. Leverett Hubbard, F.M.S.

Article XIX. Case showing the good effects of the antiphlogistic regimen in the eruptive variolous fever. By Dr. Samuel Nesbitt, F.M.S.

Article XX. History of a dysentery occasioned by stagnant air. By Dr. Ebenezer Beardsly, F.M.S.

Article XXI. Case of a division of the tendo Achillis. By Dr. Samuel Nesbitt, F.M.S.

Article XXII. Case of a wound in the Trachea Arteria and Æsophagus. By John Spalding, Surgeon, F.M.S.

Article XXIII. Case of an enlarged Gall-bladder. By Dr. Ebenezer Beardsly, F.M.S.

Article XXIV. Case of Dysentery Symptoms from worms. By Dr. Samuel Nesbitt, F.M.S.

Article XXV. Case of a scirrhus in the pylorus of an infant. By Dr. Hezekiah Beardsly, F.M.S.

Article XXVI. Case of Calculi in the Lungs. By Dr. Eneas Munson, F.M.S.

In 1791 the Windham County Medical Society, in the State of Connecticut, came into existence, and in 1792 many more medical societies. In 1792 the Connecticut State Medical Society was organized and received its charter. This charter, as will be seen, gave the Society very complete control of the practice of medicine in the State:

"CHARTER OF THE MEDICAL SOCIETY OF THE STATE OF CONNECTICUT.

(Enacted in May 1792)

"*Whereas* well regulated medical societies have been found to contribute to the diffusion of true science, and particularly the knowledge of the healing art; Therefore,

"1. *Be it enacted by the Governor and Council and House of Representatives in General Court assembled*, that there be a medical society founded within this state, to consist of the following, viz. James Potter, Leveret Hubbard, Charles Phelps, Joshua Porter, Amos Mead, Charles Mather, Josiah Hart, Eliakim Fish, Samuel Flagg, Eneas Munson, Jared Potter, John Lester, David Rogers, Philip Turner, Elisha Perkins, Isaac Knight, Daniel Sheldon,



DR. ÆNEAS MUNSON.

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Phineas Miller, James Schoville, Samuel Woodward, Ichabod Warner, Jeremiah West, David Sutton, Elihu Tudor, Timothy Rogers, Joseph Baker, John R. Watrous, Seth Bird, Minor Grant, Simon Wolcott, John Osborn, Asa Hamilton, Theophilus Rogers, Lemuel Hopkins, Philemon Tracy, Mason F. Cogswell, Thaddeus Betts, Thomas Coit, Joshua Downer, Elnathan Beach, John Turner, John Spalding, Levi Ives, James Clarke, Albigen Waldo, John Clark, and Elisha Lord, with such other physicians and surgeons, as shall hereafter be approved of, and admitted from time to time, as is herein after provided, that is to say, the physicians and surgeons, living in the respective counties, shall have liberty to meet together on the fourth Tuesday of September next, and at such place within their respective counties, as shall be appointed by Lemuel Hopkins, Eneas Munson, Simon Wolcott, Albigen Waldo, James Potter, Seth Bird, Jeremiah West, and John Osborn; and by them notified, by advertising in some public Gazette in the counties in which they respectively dwell, and when so met, they shall have authority by their major vote in such respective meetings, to determine the qualifications, and admission of their own members, and the persons who shall thus be admitted, shall have authority to make a choice of a chairman and clerk, to conduct the affairs of such meetings.

"2. *Be it further enacted*, That such county meetings formed as aforesaid, and all future county meetings, which the members so approved and as aforesaid, with such others as shall hereafter be duly approved and admitted pursuant to this act, shall annually hold on the fourth Tuesday in September, which they are hereby authorized to do, and at such place as they shall appoint the said future meetings, having organized themselves with a chairman and clerk, as aforesaid, are hereby authorized and directed to choose by ballot, from amongst themselves, five persons from each county, except for the county of Middlesex and Tolland, and three for each of those counties, to compose a convention of said society; which members so to be chosen for first said convention, shall meet at the court house in Middletown, on the second Tuesday of October next at ten of the clock in the forenoon; and for the future annual conventions at such time and place as they shall appoint, and being so met, they are hereby authorized, by ballot to choose a president, vice-president, treasurer, and secretary, and such other officers as they may think proper, and the convention so formed, shall be known by the name of The President and Fellows of the Connecticut Medical Society; and shall hold their offices for the term of one year, and shall have full power to make by-laws to promote the ends of said society, provided they be not repugnant to the

laws of this state or of the United States, and may expel members from said society, for any misdemeanours as relative to said society; to appoint examining committees in the respective counties, who shall examine such candidates as may offer themselves for that purpose, and license such as shall be found qualified for the practice of physic or surgery, and to receive them on their desire as members of said society in their respective counties; to confer honorary degrees on such of the faculty as they may from time to time find of distinguished merit, to purchase and hold to, and for, the benefit of said society, property, both real and personal, to an amount not exceeding sixteen thousand, six hundred and sixty-seven dollars, and to manage, improve and convey the same for the common good and interest of said society, and may have a common seal, and the same alter or renew at their pleasure; and the said society, in their corporate capacity may sue and be sued as other societies and bodies corporate may by law, as relative to the contracts, rights and interests, of said society. Twenty members to be present to be a quorum to transact the business of said society.

"3. *Be it further enacted*, That it shall be the duty of the several members of the society, according to their ability, to communicate useful information to each other in their respective county meetings, and such meetings shall, from time to time, transmit to the convention, such curious cases and observations, as may come to their knowledge; and it shall be the duty of the convention to cause to be published, such extraordinary cases, and such observations on the state of the air, and on epidemical and other disorders as they may think proper, and the said county meetings and conventions shall have power to adjourn from time to time, as they may think necessary, to promote the designs of their institution.

"4. *Be it further enacted*, That if this act, or anything herein contained shall be found inadequate or inconvenient, it may by the general assembly be altered, amended or repealed."

In 1800 the charter was amended by the addition of the following clause:

"*Be it enacted by the Governor and Council and House of Representatives in General Court assembled*, That no person in future shall commence or enter upon the practice of physic or surgery in this state, who has not been duly licensed, by some medical society, or college of physicians or shall take benefit of laws for the recovery of any debts or fees for such practice."

The College of Physicians of Philadelphia.

The history of the College of Physicians of Philadelphia has been most thoroughly and entertainingly written by Dr. W. S. W. Ruschenberger in his "Account of the Institution and Progress of the College of Physicians of Philadelphia during a Hundred Years, from January, 1787." Upon it I have relied in my account of its history for practically all my information. I have also made free use of the "Early History of Medicine in Philadelphia," by Dr. George W. Norris. Both of these books possess far more than a local interest in their account of the times when Philadelphia was the centre of medicine in America, and when the medical students who gathered there received instruction from as gifted and learned a group of teachers as it has probably been the fortune of any one city to boast of at one time.

Even as early as the year 1767 Dr. John Morgan, according to Norris, was endeavoring to found a College of Physicians. Thomas Penn wrote to Richard Peters on February 25, 1767,—

"I have had a letter from Dr. Morgan, and proposals for erecting a College of Physicians. I think it very early for such an establishment, and wish the faculty would not press for such a thing. I shall confer with Dr. Fothergill upon it."

The Proprietaries, finally, whether acting upon the advice of Dr. Fothergill or not is not known, refused to grant a charter, so that the scheme fell through. Dr. Ruschenberger quotes passages from letters written in the year 1783 by Dr. Francis Rigby Brodbelt, of Spanish Town, Jamaica, and Dr. Samuel Powel Griffitts, in which mention is made of the projected founding of such a college.

The first stated meeting of the College of Physicians of which the minutes are preserved was held on Tuesday,

the 2d of January, 1787. There had been, however, meetings for organization earlier than this; a constitution had been adopted and officers elected. At this meeting the constitution was signed by the members who were present, being nine senior and four junior Fellows. Drs. Benjamin Rush, Benjamin Duffield, and Samuel P. Griffitts were appointed a committee to prepare a form of diploma or certificate of membership and to devise a seal for the College. Drs. William Shippen, Adam Kuhn, and William W. Smith were appointed a committee to draw up a set of by-laws. The constitution was printed in *The Pennsylvania Packet and Daily Advertiser* for February 1, 1787.

The following notice was also printed :

"All communications that are included in the objects of the College, specified in the preamble of the constitution, may be addressed to the Secretary (post paid, when they are sent by that conveyance), or to any fellow of the College.

"It is to be hoped the friends of medical science in every part of the United States will concur in promoting by useful communications the important designs of this institution.

"Published by order of the College.

"JAMES HUTCHINSON, Secretary.

"The present officers of the College are:

<i>President</i>	<i>Treasurer</i>
John Redman	Gerardus Clarkson
<i>Vice-President</i>	<i>Secretary</i>
John Jones	James Hutchinson
<i>Censors</i>	
William Shippen, Jr.	John Morgan
Benjamin Rush	Adam Kuhn"

The first constitution read as follows :

"CONSTITUTION OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA
January 2nd, 1787.

"The Physicians of Philadelphia, influenced by a conviction of many advantages that have arisen in every country from Literary

institutions, have associated themselves under the name and title of the College of Physicians of Philadelphia.

"The objects of this College are, to advance the Science of Medicine, and thereby to lessen Human Misery, by investigating the diseases and remedies which are peculiar to our Country, by observing the effects of different seasons, climates, and situations upon the Human body, by recording the changes that are produced in diseases by the progress of Agriculture, Arts, Population, and Manners, by searching for Medicines in our Woods, Waters, and the bowels of the Earth, by enlarging our avenues to knowledge; from the discoveries and publications of foreign Countries; by appointing stated times for Literary intercourse and communications, and by cultivating order and uniformity in the practice of Physick.

"For the purpose of obtaining these objects, the following Rules have been adopted:

"1st. The College shall consist of twelve Senior Fellows and of an indefinite number of junior Fellows and Associates.

"2nd. The Senior and junior Fellows shall reside in the City, or District of Southwark, or Liberties of Philadelphia.

"3rd. The Associates shall consist of such persons of merit in the profession of Medicine who do not live within the limits described for Fellows, without any regard to Diversity of Nation or Religion.

"4th. The junior Fellows shall consist of such Practitioners of Physic as are of good moral character and decent deportment, and who are not under twenty-four years of age.

"5th. The Senior Fellows shall be chosen from among the Juniors, by the Seniors only, within one month after a vacancy is declared. The Junior Fellows and Associates shall be chosen by the joint votes of all the Fellows. Three-fourths of the whole number of Senior Fellows shall concur in the admission of Seniors, and three-fourths of the Fellows shall concur in the admission of Juniors and Associates.

"6th. All Laws, Regulations, and Appointments to offices shall be made by a Majority of the joint votes of the Fellows.

"7th. The officers of the College shall consist of a President, Vice-President, four Censors, a Treasurer, and Secretary, who shall be chosen annually from among the Senior Fellows on the first Tuesday in July.

"8th. The Stated Meetings of the College shall be on the first Tuesday in every month. Besides these meetings the President, or in his absence or indisposition the Vice-President, shall have power to call extraordinary meetings whenever important or unexpected business shall require, of which he shall be the judge.

"It shall likewise be in the power of any six Fellows of the College who concur in their desires of a meeting to authorize the President or, in his absence, the Vice-President to call it.

"9th. The business of the Censors shall be to inspect the Records and examine the accounts and expenditures of the College and report thereon; and all communications made to the Society, after being read at one of their stated meetings, shall be referred to the Censors, and such other members of the College as shall be nominated for the purpose to examine and report thereon to the College, who shall determine by a vote taken by Ballot, on the propriety of publishing them in their transactions.

"10th. The business of the Secretary shall be to keep minutes of the meetings and transactions of the Society, and to record them in a Book provided for that purpose. Likewise to receive and preserve all books and papers belonging, and letters addressed to the College.

"11th. The business of the Treasurer shall be to receive all the monies of the College, and to pay them to the order of the President or Vice-President only, which order shall be the Voucher of his expenditures.

"12th. Every member of the College shall have a certificate of his election, with the seal of the College affixed thereto, signed by the President and Vice-President, and countersigned by the Censors and Secretary. The style of the certificates and all addresses from the College, shall be as follows: The President (or the Vice-President), and College of Physicians of Philadelphia.

"13th. No associate who comes to reside within the limits mentioned in the Second Rule shall be admitted to a Fellowship in the College without being elected in the manner prescribed for the admission of Junior Fellows. No new member shall be chosen who has not been proposed at a previous stated meeting.

"14th. No Law or Regulation shall be adopted that has not been proposed at a previous stated meeting, nor shall any part of the Constitution be altered without being proposed for consideration for three months. The President, or the Vice-President when he takes the chair, shall have no vote, except on questions where there is an equal division of voices.

"Two-fifths of the Fellows shall be a quorum for all Business, except the election of members, the expenditure of money, the making of Laws, or the altering of the Constitution; in the three last cases, a majority of the Fellows shall be a quorum.

"15th. Every Fellow upon his admission shall subscribe to the above Rules, as a Testimony of his consent to be bound by them. He shall at the same time pay into the hands of the Treasurer the

sum of eight dollars; towards establishing a fund for the use of the College; he shall likewise pay two dollars annually for the same purpose.

"Senior Fellows.

John Morgan,	Gerardus Clarkson,
John Redman,	Samuel Duffield,
John Jones,	Thomas Parke,
William Shippen, Jr.,	James Hutchinson,
Adam Kuhn,	George Glentworth,
Benj. Rush,	Abra. Chovet.

"Junior Fellows.

Andrew Ross,	Nathan Dorsey,
Wm. W. Smith,	B. Duffield,
James Hall,	John Carson,
William Clarkson,	John Foulke,
William Currie,	Robt. Harris,
Benjn. Say,	John R. B. Rodgers,
Samuel P. Griffiths,	Caspar Wistar, Jun'r.
J. Morris,	Jas. Cunningham."

The constitution was amended to what is practically its present form on November 6, 1787.

The first meeting-place of the College was in buildings occupied by the University of the State of Pennsylvania at Fourth and Arch Streets. The meetings were held on the first Tuesday of each month, at four P.M. from October to March and at five P.M. from April to September. Subsequently the members leased a room in the hall of the American Philosophical Society from December 10, 1791, till June 10, 1794, for about twenty-three dollars a year, and having furnished it at a cost of seventy-two dollars, held their meeting there. This lease was subsequently renewed from time to time, and the College remained as tenants of the American Philosophical Society until July 1, 1845, a period of more than fifty-three years. In 1845 they moved into a hall in the Mercantile Library Company's building at the southeast

corner of Fifth and Library Streets. In 1854 the College began to hold its meetings in the small building known as the Picture House, from its containing the picture Benjamin West had painted, on the grounds of the Pennsylvania Hospital. This continued to be the home of the College until March, 1863, when they moved into their own buildings at the northeast corner of Thirteenth and Locust Streets. In 1852 the night for meeting was changed to the first Wednesday of the month in compliance with the request of twenty-nine members of the College, who were also members of the Academy of Natural Sciences, which always met on the first Tuesday. We find that at an early date the College manifested its benevolent interest in the welfare of others, for at the meeting on April 3, 1787, committees were appointed to submit plans for establishing hot and cold baths and a botanical garden for the city. On November 7, 1787, the College adopted a petition to the Legislature, prepared by a committee consisting of Drs. Jones, Rush, and Griffiths, "setting forth the pernicious effects of spirituous liquors upon the human body, and praying that such a law may be passed, as shall tend to diminish their consumption."

On the 3d of June, 1788, a committee was appointed, consisting of Drs. Redman, Jones, Kuhn, Shippen, Rush, Griffiths, Wistar, and Hutchinson, "to form a pharmacopœia for the use of the College." This was the first attempt to issue an official Pharmacopœia in the United States.

On April 7, 1789, a circular letter was issued requesting the co-operation of those interested in the matter towards the formation of a Pharmacopœia of the United States. The committee had evidently determined to enlarge the scope of their work. This letter read as follows:

"SIR The Physicians of this city, from a desire of extending medical knowledge, and of promoting harmony and uniformity in the practice of physic, have associated themselves under the name of the College of Physicians of Philadelphia.

"With a view to render their institution more extensively useful, they have resolved to address the most respectable medical characters in the United States, intimating their designs, and requesting such information as may be most conducive to carry them into effect.

"One of the Objects of this College has been that of forming a Pharmacopœia adopted to the present state of medicine in America; for which purpose a committee of their members has been some time since appointed, who have made some progress in their work. When we consider the great number of publications of this kind which Europe has been, and is annually producing, we think no doubt can arise of the absolute necessity of some standard amongst ourselves to prevent that uncertainty and irregularity which in our present situation must infallibly attend on the composition of the Apothecary and the prescription of the Physician. And as we wish this Work may be accommodated to the practice of medicine throughout the United States, and that every useful addition may be made to former publications, we request that you will favour us with your sentiments on the subject, and particularly inform us what Native American Remedies have been discovered amongst you. It will be necessary to give the botanical and vernacular names of such substances, and to ascertain their virtue with the most scrupulous Precision. As we are desirous of publishing a volume of *Transactions* as often as materials are afforded, we shall be much obliged to you for whatever Communications you may favor us with on medical subjects.

"Although we particularly address those Physicians who are best known to us, yet as there must be many others, men of learning and rank in the Profession, the knowledge of whom has not yet reached this place from the want of that intercourse which would be so desirable and useful to the Advancement of Medical Science, we wish that you would communicate to them our intentions and that they would excuse this unavoidable omission, and furnish us with their assistance as though they were severally addressed.

"Letters and communications are to be addressed to the President or Secretary of the College.

"Signed by order of the College

"JOHN REDMAN, President.

"SAMUEL POWEL GRIFFITTS, Secretary.

"PHILADELPHIA."

One hundred of these letters were sent out, and many individual responses approving of the scheme were received. At the meeting of the College on August 3, 1790, a letter was read from the Medical Society of New Haven offering its heartiest co-operation. It was signed by a committee composed of Drs. Leverett Hubbard, Eneas Munson, Ebenezer Beardsly, Elnathan Beach, and Samuel Nesbitt.

There were many practical obstacles to the immediate carrying out of the scheme, but the matter was kept constantly in mind. On June 6, 1797, Drs. Griffiths, Barton, and James were appointed to prepare a list of "medical substances and pharmaceutical processes" to be described in the Pharmacopœia. All this agitation on the subject started many others in the same line of work, and in 1808 Drs. James Thacher and John Collins Warren published, under the auspices of the Massachusetts Medical Society, the first official Pharmacopœia issued in the United States. It was received with much cordiality, and met with the heartiest commendation of the College of Physicians of Philadelphia, although it might have been expected to arouse some feeling of disappointment at the forestalling of their own project.¹⁰

¹⁰ The subsequent history of the events finally leading to the publication of the "United States Pharmacopœia" is of much interest. I have condensed it from Dr. Rushenberger's book. On November 21, 1818, a circular letter was sent to the College of Physicians by Drs. David Hosack, John R. B. Rodgers, Samuel L. Mitchell, John Stearns, John Watts, Jr., T. Romeyn Beck, Lyman Spalding, Wright Post, and Alexander H. Stevens, of New York, proposing a plan to be laid before the College at its next meeting. The plan outlined was that a Pharmacopœia should be composed under the auspices of the incorporated medical societies and schools of the United States, and in States or Territories where no such corporate bodies existed, by voluntary associations of the physicians practising in them. That conventions should be held in the four

On November 11, 1788, the College petitioned the Legislature for permission to bring in a bill for its incorporation, which was granted, and the bill presented

grand divisions of the United States, and these district conventions should each elect delegates to a general convention to be held in Washington, District of Columbia, on the 1st of January, 1820. That the general convention should form a national Pharmacopœia based on the previous district convention Pharmacopœias. This plan owed its inception to Dr. Lyman Spalding. It was approved by the College, and Drs. Parke, Griffiths, Hewson, Jones, Stewart, Atlee, and Parrish were appointed as its delegates to the district convention of the Middle States, which met in the chamber of the College of Physicians of Philadelphia on June 1, 1819. There were delegates in attendance from the College of Physicians of Philadelphia, the Medical Society of the State of New York, the College of Physicians and Surgeons of the State of New York, the College of Physicians and Surgeons of the Western District of New York, the New Jersey Medical Society, the Medical and Chirurgical Faculty of Maryland, the Medical Society of Delaware, and the Medical Society of the District of Columbia.

This convention adjourned on June 4, after considering two Pharmacopœias in outline and a code of ethics, and electing as delegates to the National Convention Drs. Samuel L. Mitchell, Alexander H. Stevens, Lyman Spalding, and John Watts, Jr., of New York; Drs. Thomas Parke and Thomas T. Hewson, of Philadelphia; Dr. Allen McLane, of Wilmington, Delaware; Drs. Elisha De Butts and Samuel Baker, of Baltimore; and Dr. Henry Hunt, of Washington, District of Columbia.

The convention of the eastern district of the United States had been held at Boston on June 1, 1819, and had included delegates from the Medical Society of Massachusetts, the Medical Society of Vermont, Brown University in Rhode Island, the Medical Society of Rhode Island, and the Medical Society of Connecticut. Drs. Ives, of Connecticut, and Bigelow, of Massachusetts, were elected its delegates to the National Convention.

The National Convention met in Washington on January 1, 1820, and they compiled a *Codex Medicamentarius*, or Book of Rules and Directions, for selecting and compounding the articles employed in practice.

This convention decided that meetings of such a body should be held every ten years for the purpose of revision of the Pharmacopœia as necessity arose.

in February, 1789. The date of incorporation was March 26, 1789.

On June 3, 1788, Drs. Jones, Wistar, and Griffiths were appointed a committee to formulate a plan for a library for the College. The Fellows were requested to contribute books. In December, 1788, Dr. John Morgan gave the College twenty-four volumes, and in the following month he added some more. On July 7, 1789, Drs. Jones, Parke, and Wistar were appointed to prepare a list of books to be purchased for the College Library, at a cost not exceeding fifty pounds.

In October, 1789, Dr. William Shippen presented the College with the works of Dr. John Morgan in eight volumes, and Dr. John Jones presented some books. In the ensuing November the president was authorized to expend fifty pounds for books for the Library. In 1790 a number of volumes were imported from England, and in 1793 Dr. Rush presented the College with the works of Sydenham. In 1794 the unbound pamphlets belonging to the College were ordered bound into volumes. In 1795 the Library received a number of valuable donations, especially from Dr. Parke.¹¹

¹¹ In 1825 the Kappa Lambda Society deposited their library with that of the College. On June 7, 1836, the Library contained only two hundred and ninety-one volumes,—namely, thirty-one folios, sixty-seven quartos, and one hundred and ninety-three octavos. In 1844 the medical library of Dr. Otto was purchased. It was placed in a room over the office of Dr. Hodge at Ninth and Walnut Streets. On June 3, 1845, the Library Committee reported that one case of books stood on the landing of the stairway leading to "our room;" that the Otto collection was at Dr. Hodge's office, and that the library was very little used. On December 1, 1846, the Philadelphia Medical Society deposited its library with that of the College, but on December 7, 1859, the Society took its books away again. In 1858 the College received twelve hundred and sixty-five volumes from Dr. Thomas F. Betton. In 1864 Dr. Samuel Lewis presented

During the spring of 1789 influenza was epidemic in the city, and the president called a special meeting of the College on April 16 to consult the members as to the propriety of warning the authorities against a general illumination of the city, which had been proposed in honor of Washington, who was to pass through on his way to be inaugurated. It was feared the sick might be seriously affected if a general celebration were instituted. At this meeting Drs. Redman, Jones, and Rush were appointed a committee to wait upon the Supreme Executive Council the next morning and "inform them that although the College of Physicians do sincerely join their fellow-citizens in their joy on the occasion yet they cannot be so inattentive to the health of many under their care, as to decline informing the Council that a general illumination of the city, might be productive of fatal consequences." Dr. Ruschenberger says that though there was "a handsome display of fireworks in the evening," no general illumination is mentioned.

the College with upward of two thousand five hundred volumes, a collection which has ever since been known as the Lewis Library, and kept distinct from the rest of the books in the College Library.

In 1866 Dr. George B. Wood agreed to give the College five hundred dollars annually in order that the Library might be kept open daily for the use of the Fellows. In 1869 the College received four hundred and forty-five dollars and ninety cents from the Philadelphia Medical Society at the time when the latter dissolved.

In 1880 Dr. S. Weir Mitchell presented one thousand dollars to establish a Journal Fund, to which he has subsequently added very munificently.

Among the generous donors to the Library of recent years may be mentioned Drs. Alfred Stillé and I. Minis Hays, and Mrs. G. F. Weightman, Mrs. Helen C. Jenks, and Mr. William Weightman.

On April 1, 1884, the Samuel D. Gross Library of the Academy of Surgery was deposited with the College. It is to become the property of the College should the Academy of Surgery ever cease to exist.

In November, 1789, a committee appointed by the Legislature to amend the quarantine laws of the State applied to the College for its advice on the subject. Drs. Redman, Jones, Shippen, Rush, and Hutchinson were appointed to draft an answer.

On May 7, 1793, the first steps were taken towards publishing the Transactions of the College. A committee, consisting of Drs. Ross, Wistar, and Griffiths, was appointed to attend to the printing, another, consisting of Drs. Leib, Currie, and Gibbons, to see about the publication, and Drs. Rush, Shippen, and Griffiths were assigned the duty of composing a suitable preface. On September 3, 1793, the Secretary reported that he had received a number of copies of the first part of volume one of the Transactions. A copy was directed to be sent to the author of each paper in the volume and to the medical societies of the United States and Europe. Then the publication of formal transactions halted for many years. In 1798 a pamphlet was published entitled "Proceedings of the College of Physicians of Philadelphia relative to the Prevention of the Introduction and Spreading of Contagious Diseases." In 1800 another pamphlet was published under the title "Facts and Observations relative to the Nature of the Pestilential Fever which prevailed in this City in 1793, 1797, and 1798. By the College of Physicians of Philadelphia."

The Philadelphia Medical Society.

In 1789 there was instituted another Philadelphia medical society, which received articles of incorporation in 1792, and was rechartered in 1827. It had a flourishing existence for half a century, when it amalgamated with the College of Physicians of Philadelphia.

The Delaware State Medical Society.

The Delaware State Medical Society was incorporated February 3, 1789, by the Legislature of the State, under the title of "The President and Fellows of the Medical Society of Delaware."

The incorporators were John McKinly, Nicholas Way, Jonas Preston, Ebenezer Smith, George Munro, Thomas McDonough, Joshua Clayton, Ezekiel Needham, James Tilton, William Molleston, Edward Miller, James Sykes, Nathaniel Luff, Robert Cook, Matthew Wilson, Joseph Hall, John Marsh, John Polk, John Stephens Hill, Julius Augustus Jackson, William McMechen, Henry Latimer, James McCallmont, Joseph Capelle, Archibald Alexander, Henry Peterson, and Levarius Hooker Lee.

The first meeting was held at Dover on May 12, 1789, and its first officers were, President, James Tilton; Vice-President, Jonas Preston, M.B.; Secretary, Edward Miller, M.B.; Treasurer, James Sykes; Censors, Nicholas Way, M.D.; Matthew Wilson, M.D.; Joshua Clayton, Nathaniel Luff. The Society has maintained a continuous existence to the present time.

New Hampshire Medical Society.

In 1791 the Legislature of New Hampshire granted a charter to a body of physicians incorporating them under the above title. Their charter read as follows:

"STATE OF NEW HAMPSHIRE.

"In the year of our Lord one thousand seven hundred and ninety-one.

"(L. S.) An Act, to incorporate certain Physicians by the name of the New Hampshire Medical Society.

"As health is essentially necessary to the happiness of society; and as its preservation or recovery is closely connected with the knowledge of the animal economy, and of the properties and effects of Medicine; and as the benefit of Medical Institutions, formed on

liberal principles, and encouraged by the patronage of the Law, is universally acknowledged;

"Be it therefore enacted by the Senate and House of Representatives in General Court convened, That Josiah Bartlett, Joshua Brackett, Ammi Ruhamah Cutter, Hall Jackson, Nathaniel Peabody, William Page, Moses Carr, James Brackett, John Rogers, John Jackson, Ezra Green, Ebenezer Rockwood, William Cogswell, Kendall Osgood, George Sparhawk, William Parker, Samuel Tenney, Benjamin Page, and Isaac Thorn, be, and they hereby are, formed into, constituted and made a Body Politic and Corporate, by the name of the New Hampshire Medical Society, and that they and their successors, and such other persons as shall be elected in the manner hereafter mentioned, shall be and continue a Body Politic and Corporate by the same name forever.

"2. And be it further enacted, That the Fellows of said Society may, from time to time, elect a President, Vice-President, and Secretary, with such other Officers as they shall judge necessary and convenient. And the Fellows of said Society shall have full power and authority, from time to time, to determine and establish the names, number, and duty of the several Officers, and the tenure and estate they have in their offices, respectively; and also to authorize and empower their President, or some other officer, to administer such oaths to such officers as they, the Fellows of said Society, shall appoint and determine, for the well ordering and good government of the said Society—provided the same be not repugnant to the Laws of this State.

"3. And be it further enacted, That the Fellows of said Society shall have one common Seal, and power to break, change, and renew, the same at their pleasure.

"4. And be it further enacted, That the Fellows of said Society may sue and be sued, in all actions, real, personal, and mixed, and prosecute and defend the same unto final judgement and execution, by the name of the New Hampshire Medical Society.

"5. And be it further enacted, That the Fellows of said Society may, from time to time, elect such persons to be Fellows thereof, as they may judge proper; and that they, the Fellows of said Society, shall have power to suspend, expel, or disenfranchise, any Fellows of said Society.

"6. And be it further enacted, That the Fellows of said Society shall have full power and authority to make and enact such Rules and By-Laws, for the better government of said Society, as are not repugnant to the Laws of this State; and to annex reasonable fines and penalties to the breach of them, not exceeding the sum of Twenty Pounds, to be sued for and recovered by said Society,

and to their own use, in any Court of Record in this State proper to try the same; and also to establish the time and manner of convening the members of said Society; and also to determine the number of Fellows that shall be present to constitute a meeting of said Society; and also that the members of said Society, who are inhabitants of this State, shall not at any time be more than seventy, nor less than fifteen; and that their meetings shall be held in Concord, or such other place within this State as a majority of the members present, in a legal meeting, shall judge most fit and convenient.

"And whereas it is clearly of importance, that a just discrimination should be made between such as are duly educated and properly qualified for the duties of their profession, and those who may ignorantly and wickedly administer medicine, whereby the health and lives of many valuable individuals may be endangered, or perhaps lost to the community.

"7. Be it therefore further enacted, That the President and the Fellows of said Society, or such of their officers or Fellows as they may appoint, shall have full power and authority to examine all candidates for the practice of Physic and Surgery, who shall offer themselves for examination respecting their skill in their profession, and if upon examination, the said candidates shall be found skilled in their profession, and fitted for the practice of it, they shall receive the approbation of the Society, in letters testimonial of such examination, under the Seal of said Society, signed by the President, or such other person or persons as shall be appointed for that purpose.

"8. And be it further enacted, That if the said President and such other person, or persons so selected and appointed for the purpose of examining candidates as aforesaid, shall obstinately and unreasonably refuse to examine any candidate so offering himself for examination as aforesaid, such and every such person so elected and appointed as aforesaid, shall be subject to a fine not exceeding One Hundred Pounds, nor less than Twenty Pounds, to be recovered by the said candidate, and to his own use, in any Court within this State proper to try the same.

"9. And be it further enacted, That it shall be the duty of the said Medical Society, from time to time, to describe and point out such a medical instruction or education, as they shall judge requisite for candidates for the practice of Physic and Surgery, previous to their examination before them, or their officers appointed for that purpose, respecting their skill in their profession, and shall cause the same to be published in two newspapers printed in different counties in this State. And every candidate, examined and approved by the President and Fellows of said Society, or such of their

officers or Fellows as they shall appoint, shall be held to pay such reasonable fees of office as shall be established by said Society for the examination of candidates, and letters testimonial in favour of such as shall be approbated. And the Treasurer of said Society for the time being, shall have full power and authority to sue for and recover the same, in any Court proper to try the same.

"10. *And be it further enacted*, That the Fellows of said Society may and shall forever be deemed capable in law, of holding and taking, in fee-simple, or any less estate by gift, grant, devise, or otherwise, any lands, tenements, or other estate, real or personal, provided that the annual income of the whole real estate that may be given, granted, or devised to, or purchased by, the said Society, shall not exceed the sum of Two Hundred Pounds, and the annual income or interest of said personal estate shall not exceed the sum of One Thousand Pounds; And the annual income of the said real estate and personal estate, together with the fines and penalties paid to said Society, or recovered by them, shall be appropriated to such purposes as are consistent with the end and design of the institution of said Society, and as the Fellows thereof shall determine.

"11. *And be it further enacted*, That His Excellency Josiah Bartlett, Esquire, be, and he hereby is, authorized and directed to fix the time and place of holding the first meeting of said Medical Society, and to notify the Fellows thereof accordingly.

"STATE OF NEW HAMPSHIRE.

"IN THE HOUSE OF REPRESENTATIVES, Feb. 11, 1791.

"The foregoing bill having been read a third time, passed to be enacted.

"Sent up for concurrence

"MOSES DOW, Speaker.

"IN SENATE, Feb. 16, 1791.

"This bill having been read a third time—

"Voted, That the same be enacted

"JOSIAH BARTLETT, President.

"A true Copy.—Attest—

"JOSEPH PEARSON, Secretary."

In 1816 a bill was passed increasing the limit of membership from seventy to two hundred.

Dr. Josiah Bartlett, who was the first president of the Society, occupied a most prominent position politically as well as medically in New Hampshire. At the time

of the Society's incorporation he was president of the State of New Hampshire, and in 1791 became the first governor of that State.

It is curious to note that in New Hampshire as well as Massachusetts the subject of the authorization of those who desired to practise medicine was left entirely in the hands of the medical society of the State.

The following rules regarding the licensing of medical practitioners were adopted by the New Hampshire Society:

"SEC. I. *Qualification of Licentiates.* 1. No candidate for the practice of Physic and Surgery shall be admitted to examination, until he shall have attained the age of twenty-one years.

"2. He shall have a competent knowledge of the English and Latin Languages, and a general acquaintance with the principles of Geometry, and of Natural and Moral Philosophy.

"3. He shall have studied three full years under the direction of some reputable Physician or Physicians, possessing the requisite qualifications for consultation, as specified in Chap. I. Sec. VII.

"SEC. II. *Censors.* It is the duty of the Censors to examine all candidates for the practice of Medicine and Surgery, that possess the requisite qualifications. They shall meet at least twice in every year and shall give public notice of the time and place of each meeting, one of which shall be the day preceding the annual meeting of the Society. Any two of the Censors present shall constitute a quorum for business. In every examination, the following course shall be pursued:—The candidate shall be called on for written testimonials of his having complied with the requisitions of the Society in respect to education; and it shall be especially inquired, whether any portion of the time which he has professed to devote to his professional education, has been employed in school-keeping, or any other occupation; and all time so employed shall be deducted from the time professedly devoted to his Medical education. Likewise, the candidate's knowledge of the Latin language, and of the principles of Geometry, and of Natural and Moral Philosophy, shall be carefully inquired into, and fully shewn, either from teachers of established reputation and good credit, or actual examination; and in every case where the Censors are not fully satisfied on these points, the examination shall close, and letters of approbation and license shall be refused. In case the Censors are satisfied on the points above stated, the candidate shall be critically examined in the

following branches, viz., Anatomy, Physiology, Chemistry, *Materia Medica*, Midwifery, Surgery, Pathology, and Therapeutics; and if the acquirements of the candidate appear to be such as to qualify him to take charge of the lives and health of his fellow-men, he shall receive a letter of approbation and license of the form following—for which he shall pay the sum of Ten Dollars, to be devoted exclusively for the benefit of the Library:—

“STATE OF NEW HAMPSHIRE.

“We, the Censors of the New Hampshire Medical Society, duly appointed and authorized, have examined A. B., of C., in the county of D., a candidate for the practice of Physic and Surgery; and having found him qualified, do approve and license him a practitioner in Medicine and Surgery, agreeably to Law in that case made and provided.

“Dated at —, this — day of —, A.D. 18—

“E. F. }
G. H. } Censors.

“By virtue of the power in me vested, I have hereunto caused the Seal of the New Hampshire Medical Society to be affixed.

“I. J. President.

“Attest K. L. Secretary.”

The following provision was made in cases of physicians from other parts who wished to practise in New Hampshire:

“SEC. III. *Foreigners.* The Censors, upon application from any person educated in another State or Country, shall examine such evidence as he shall offer for the purpose of proving himself duly qualified to practice Medicine and Surgery; and if it shall appear that the person presenting such testimonials has received an education equal to that required by this Society, the Censors shall certify the same to the Secretary, and license him in the form following:—

“STATE OF NEW HAMPSHIRE.

“We, the Censors of the New Hampshire Medical Society, duly appointed and authorized, have examined the Letters Testimonial of A. B., of C., in the State of D., and having found them satisfactory, do hereby admit him to all the privileges of those who have been educated, examined, and licensed in this State.

“Dated at —, this — day of —, A.D. 18—

“E. F. }
G. H. } Censors.

"By virtue of the power in me vested, I have hereunto caused the Seal of the New Hampshire Medical Society to be affixed.

"I. J. President.

"Attest K. L. Secretary."

The Medical and Chirurgical Faculty of the State of Maryland.

This venerable Society was incorporated by the Legislature of that State in 1798. The first meeting was held in Annapolis, on the first Monday in June, 1799. Its centennial celebration was observed with fitting exercises at Baltimore in April, 1899.

The Medical Collegium of the Moravians at Bethlehem.

Dr. Charles McIntire, of Easton, Pennsylvania, has recently published a most interesting address entitled "Physic and its Practisers in Old Northampton," in which he states that in 1744 Bishop Spangenberg, in reorganizing the Moravian community at Bethlehem, established a "Medical Collegium," which appears to have been composed of laymen as well as physicians, having for its object the care of the health of the community. An infirmary was established under the charge of the Collegium, and the members seem to have held meetings at which medical matters were discussed. I do not think, however, that the Medical Collegium can be classed as a medical society.

Dr. McIntire quotes Bishop Levering as characterizing it "as the combination of a hospital staff and a board of health," and probably this estimate of its functions is the correct one.

Codes of Ethics.

Since the early years of the nineteenth century almost all the medical societies founded in the United States have adopted a code of ethics in some form or other.

These codes are practically all of them founded on the "Code of Ethics for the Medical Profession," by Dr. Thomas Percival, an English physician of the city of Manchester, who was born in 1740 and died in 1804. He was the friend and correspondent of Benjamin Franklin, Dr. Priestley, and many other men who were prominent in science on this side of the Atlantic. Dr. Hayes prefixed the following note to the Code of Ethics of the American Medical Association:

"On examining a great number of Codes of Ethics adopted by different societies in the United States, it was found that they were all based on that by Dr. Percival, and that the phrases of this writer were preserved to a considerable extent in all of them. Believing that language so often examined and adopted must possess the greatest of merits for such a document as the present, clearness and precision, and having no ambition for the honors of authorship, the Committee which prepared this Code have followed a similar course, and have carefully preserved the words of Percival, whenever they convey the precepts it is wished to inculcate."

CHAPTER IX.

PRE-REVOLUTIONARY MEDICAL BIBLIOGRAPHY.

THE first printing-press in America was put up at Cambridge, Massachusetts, in 1639, and was under the control of Harvard College. In 1662, as there had been some publications put forth from it which seemed "to open the door of heresy," it was put in charge of two licensers. The strictest supervision was maintained over everything put forth by it. Of course the vast majority of books printed at it were expositions of puritanical theology. The earliest printing-press erected in Virginia was not put up until 1681, and for many years it was throttled by an order of Governor Effingham prohibiting its use. From 1683 to 1729 no printing was done in the colony of Virginia. When we reflect on the scarcity of printing appliances and that practically all the demand for literature in New England was of a theological nature, it is not to be wondered at that books dealing with the natural sciences should be but rarely written.

The first man to publish a work on a solely medical topic was the Rev. Dr. Thomas Thacher, who was born in England on the 1st of May, 1620. His father was the Rev. Peter Thacher, of Sarum, who had designed emigrating to New England but was withheld by domestic reasons. Thomas arrived in America in 1633 when but fifteen years of age. He had received a good school education in the old country, and upon his arrival in New England he continued his studies under Dr. Chauncy, who afterwards became one of the presidents of Harvard College. He became an erudite Oriental scholar, pub-

lished a Hebrew lexicon, and was proficient in Arabic. Dr. Mather is authority for the statement that he was an admirable mechanic and could make excellent clocks. He was ordained a minister at Weymouth, June 2, 1644. He not only preached the gospel but also practised medicine in that town until his removal to Boston, where he assumed charge of a church and became eminent also as a physician. He was taken ill with a fever shortly after visiting a sick patient, and died on the 15th of October, 1678, when fifty-eight years old.

Dr. James Thacher¹ says,—

“As a preacher he was very popular, being remarkably fluent and copious in prayer. He was zealous against the Quakers, for he believed that their doctrine subverted the gospel, and led men into the pit of darkness under the pretence of giving them light.”

Besides a Hebrew lexicon and his broadside on small-pox he also wrote a catechism. In 1677 he published his “Brief Rule” as to “Small Pocks.” This was the first medical publication in the colonies. It was printed in double column, on one side, as a poster, fifteen and a half by ten inches. A copy of it is in the Library of the College of Physicians of Philadelphia, to which institution it was presented by Dr. S. Weir Mitchell, and from it the accompanying fac-simile has been made.

In the following lists I have included some books which were not only medical but contained other matters, also some almanacs and other writings published by physicians, though not dealing strictly with professional matters. In some instances I have been unable to find any information concerning the book except its title, and in many cases the latter is very delusive, as the theological writers of those days used to choose the most fantastical

¹ American Medical Biography.

BRIEF RULE

To guide the Common People of
NEW-ENGLAND

How to order themselves and theirs in the

Small Pocks, or Measels.

The Small Pox (which cures and cures the Measles) is a disease of the blood, endeavouring to remove some humors and parts.

1. This nature attempts to do by Separation of the impure from the pure, driving it out from the Vessels of the Flesh. — 2. By driving out the impure from the Flesh to the Skin.

3. The Small Pox is done in the last said ways by a Feaverish boiling & Effluvia of the Blood driving down the impurities in the Flethy parts which kindly effluvia the Feaverish nature is calmed.

4. The Small Separation from the Flesh to the Skin, or Separation is done through the soft wheyiness of the Effluvia.

5. There are several Errors in ordering these sick ones in both. — 1. In Operations of Nature which prove very dangerous and commonly deadly either by overmuch heating Nature beyond its own pace, or in hindering of it from its own vigorous operation.

6. The Separation by Effluvia in the Feaverish heat is over heightened by too much Cloaths, too hot rooms, hot Cordials, as Distillations, Galenic powder and fish liver, for hence come Pustules, dangerous excessive sweats, or the flowing of the Pocks into the face.

7. The Small Pox is overmuch hindered by propitious cooling this Feaverish boiling heat, by blood letting, Glysters, Purgers, or cooling medicines. For though these may stifle the coming forth of the Pox, yet they take away that supply which should keep them out till they are ripe, wherefore they sink in again to the deadly danger of the sick.

8. If the Pocks happen, or through a Plethora (that is fullness of blood) the Circulation of the blood be hindered, and thereupon the whole mass of blood choked up, then either let blood, or let the blood be cooled, or medicines be not altogether cooling, but let them in as will be heating, therefore let him lie in as obscure covered in his bed till he was wont to be in health. His Chamber not made too hot, if the weather be temperate, let him drink small beer only warmed with a Toff. let him sit up in warm water or water pruned made of Indian Root and water, instead of a warm bed. Let him eat cold dry food, but I would not advise at this time any medicine be taken. By this means that excessive Effluvia (or boiling of his blood) will by degrees abate, and the Symptoms cease, time, but the blood be so managed that it will admit no delay, then either let blood (if Age will bear it) or else give some notably cooling medicine, or refresh him with more free Air.

9. But if the boiling of the blood be weak and fall that there is cause to fear it is not able to make a Separation, as it's wont to be in such as have been let blood, or are fat, or Flaccid, or brought low by some other kind of Exhaustion of the (Governing) running of the Blood, or some other Exhaustion, in such Cases Cordials must drive them out, or they must die.

10. In time of driving out the Pox from the Flesh, here care must be had that the Pocks keep out in ripe measure till they have begun to fall, and without going in again for that is deadly.

11. In this time heed when the Pocks appear, which not yet ripe, kept by too much sweating, or a new Effluvia (or Feaverish boiling) for this makes the driving out. 12. When back the separated parts into the blood, or the Flethy parts over-heated are driven down a slight separation or softly temper of the blood and some of the Fleth is perceived that it cannot overmuch digest the matter driven out.

13. Yet one other hand the breaking out must not be hindered, by exposing the sick unto the cold. The degree of heat must be such as is natural agree with the constitution of the Flethy parts: that which exceeds or falls there is dangerous. Therefore the coldness, yet, Age of the sick, and their manner of life here require a discreet and different Consideration, requiring the Counsel of an expert Physician.

14. But if by any error a new Effluvia arise, the same art must be used to allay it as in before express.

15. If the Pocks go in and a flux of the belly follows (for else there is no such danger) then Cordials are to be used, yet moderate and set not them far fast of new Effluvia.

16. Rashes (spitting) (Pruritus) follow, you may hope all will go well, therefore by no means hinder it. Only with warm small Beer let their mouths be washed.

17. When the Pocks are dried and fall in purge well, especially if it be in Autumn.

18. As soon as this disease does appear by its signs, let the sick abstain from Fleth and Wine, and open Air, let him sit small beer warmed with a Toff for his ordinary drink, and moderately with his diet. 19. For food use warm pruned water, and what things having no mouth but quality, such as Apples, baked Apples, and such others for this use, but the pocks taken off. Let the sick also be careful to keep the room of the sick, and the outside of the Pocks in good posture.

are wont. In Summer let him rise according to custom, yet it is to be desired that from heat and cold in Fevers, the distaste will be the sooner over and the patient shall be long kept in bed, notwithstanding the Feaverish heat and the Pocks, there are some small instructions.

19. In a cold season, and breaking forth of a multitude of Pocks, let him lie in bed to keep his bed, let him be covered according to his custom in Fevers, a moderate fire in the winter being kindled with Chamber, morning and Evening, neither need he keep his Arms always in bed, or by fluff in the fluff place, but his bed be good sweat which is very dangerous especially to youth.

20. Before the fourth day set no medicine to drive out, nor reason it with the sick for by how much the more gently the Pocks do come by, in much the faster and purer will the Separation be.

21. On the fourth day a gentle Cordial may help once given.

22. From that time a small draught of warm milk twice a day, a little diluted with sweet may be given morning and evening till the Pocks are come to their due ground and ripeness.

23. When the Pocks begin to dry and crack, let the patient expose his face toward which Summerizes easiest fallen death. Take morning and evening some temperature Cordial as four or five Spoonfuls of Mace wine mixed with a little of oil.

24. When the Pocks are dried and fallen off, purge once and again, especially in the Autumn Party.

25. Beware of anointing with Oils, Fats, Ointments, and such decoctions, for they keep the congested matter in the Pocks from drying up, the moisture they free escape into the Flesh, and is made the more deep Sore.

26. The young and lively were that are brought to a plethoric heat in the Summer about the eighth day the worst flux of it, by no means attempt to drive it out, but let it pass, the sick thereupon feels most troublesome difficulty and anguish, and does not see abundance of water and to dry.

27. Few young men and strong thus handled escape, except they fall into abundance of flitting or plentiful bleeding at the nose.

28. Signs of over the Effluvia at first are heaving pain in the head, Forehead, and temples, pain in the back, great heaviness, glowing of the eyes, shining glimmering tears, before then, shivering of them also, with tears flowing of themselves, itching of the Mouth, Drowsy breath, dry Coughs, sneezing, hoarseness, heat, redness, and sense of pricking over the whole body, terror in the sleep, sorrow and reflection, heaving of the heart, Drowsiness, in health, sometimes fall from great Effluvia, and all this or more of these with a Feaverish distemper.

29. Signs warning of the probable Crisis. If they break forth easily, in Air, and soon come to ripeness, if the Symptoms be gentle, the Feaver mild, and after they breaking forth is short, if the voice be free, and breathing easy, especially if the Pulse be red white, distinct, full, firm, round, sharp, rapid, only without and out in the outward parts, if there be large bleeding at the nose. These signs are hopeful.

30. But such signs are doubtful, when they difficulty appear, when they sink in again, when they are black, blue, green, last all in one, if the Feaver increases with their breath, if there be something difficulty of breathing, great thirst, quivering, great on pinners, and if a very dangerous, if there be loquacity with a strong color malignant Feaver, called by some the plethoric Pox: the Feaver Feaverish with yellow with it.

31. Deadly Signs if the Fleth of the sick happen, when they are broke forth, if the Urine be Mealy, or black, or the Urine of that Colour, or if pure blood belet out by the Belly or Gums: These Signs are for the most part deadly.

32. If the Pocks go in and a flux of the belly follows (for else there is no such danger) then Cordials are to be used, yet moderate and set not them far fast of new Effluvia.

33. Rashes (spitting) (Pruritus) follow, you may hope all will go well, therefore by no means hinder it. Only with warm small Beer let their mouths be washed.

34. When the Pocks are dried and fall in purge well, especially if it be in Autumn.

35. As soon as this disease does appear by its signs, let the sick abstain from Fleth and Wine, and open Air, let him sit small beer warmed with a Toff for his ordinary drink, and moderately with his diet. 36. For food use warm pruned water, and what things having no mouth but quality, such as Apples, baked Apples, and such others for this use, but the pocks taken off. Let the sick also be careful to keep the room of the sick, and the outside of the Pocks in good posture.

37. Few young men and strong thus handled escape, except they fall into abundance of flitting or plentiful bleeding at the nose.

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40. But such signs are doubtful, when they difficulty appear, when they sink in again, when they are black, blue, green, last all in one, if the Feaver increases with their breath, if there be something difficulty of breathing, great thirst, quivering, great on pinners, and if a very dangerous, if there be loquacity with a strong color malignant Feaver, called by some the plethoric Pox: the Feaver Feaverish with yellow with it.

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45. As soon as this disease does appear by its signs, let the sick abstain from Fleth and Wine, and open Air, let him sit small beer warmed with a Toff for his ordinary drink, and moderately with his diet. 46. For food use warm pruned water, and what things having no mouth but quality, such as Apples, baked Apples, and such others for this use, but the pocks taken off. Let the sick also be careful to keep the room of the sick, and the outside of the Pocks in good posture.

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49. Signs warning of the probable Crisis. If they break forth easily, in Air, and soon come to ripeness, if the Symptoms be gentle, the Feaver mild, and after they breaking forth is short, if the voice be free, and breathing easy, especially if the Pulse be red white, distinct, full, firm, round, sharp, rapid, only without and out in the outward parts, if there be large bleeding at the nose. These signs are hopeful.

50. But such signs are doubtful, when they difficulty appear, when they sink in again, when they are black, blue, green, last all in one, if the Feaver increases with their breath, if there be something difficulty of breathing, great thirst, quivering, great on pinners, and if a very dangerous, if there be loquacity with a strong color malignant Feaver, called by some the plethoric Pox: the Feaver Feaverish with yellow with it.

51. Deadly Signs if the Fleth of the sick happen, when they are broke forth, if the Urine be Mealy, or black, or the Urine of that Colour, or if pure blood belet out by the Belly or Gums: These Signs are for the most part deadly.

52. If the Pocks go in and a flux of the belly follows (for else there is no such danger) then Cordials are to be used, yet moderate and set not them far fast of new Effluvia.

53. Rashes (spitting) (Pruritus) follow, you may hope all will go well, therefore by no means hinder it. Only with warm small Beer let their mouths be washed.



titles, and often used physical terms in relation to spiritual matters. I have also included works by Cotton Mather and others which refer to medical matters of interest.

1694. Oliver, John. "A Present to be given to Teeming Women by their Husbands and Friends. Boston—Reprinted by Benj. Harris."

1695. "An Almanac by C. Lodovick, Physician—Boston."

1698. Mather, Cotton. "Mens Sana in Corpore Sano. A Discourse on Recovery from Sickness." (12mo, pp. 68. Boston.)

1713. Mather, Cotton. "Wholesome Words—A Visit of Advice, Given unto Families That are Visited with Sickness; By a Pastoral Letter, briefly declaring the Duties incumbent on all Persons in the Families that have any Sick Persons in them." (16 mo, pp. 24. Boston.)

There are several other works by Cotton Mather bearing medical titles but treating of theological matters. Thus, in 1714 he published "Insanabilia, An Essay upon Incurables, aimed at the Comfort and Counsel of many who encounter things for which there is no Remedy but Patience," and in 1717, "Febrifugium, An Essay for the Cure of Ungodly Anger."

Likewise we find a treatise published at Boston in 1723 entitled "Euthanasia; or Sudden Death made Happy and Easy to the Dying Believer; Exemplified in John Frizell."

About the year 1720 Cadwallader Colden published "An Account of the Diseases and Climate of New York." Colden was a Scotchman who, after studying in Edinburgh and Aberdeen, came to Philadelphia in 1708. He went home to England in 1715, but returned to America in 1716, and two years later settled in New York City

to practise medicine. He subsequently occupied many positions of public trust, and in 1761 was appointed lieutenant-governor of the province. He had a beautiful country-seat named Coldenham, near Newburgh, on the Hudson. The plant *Coldenia* was first described by his daughter, and was named after Dr. Colden by Linnæus. Dr. Colden died on September 28, 1776.

1712. This was the year in which inoculation was introduced, and we find a number of pamphlets concerning it.

Dr. Zabdiel Boylston published "Some Account of what is said of Inoculation, or Transplanting the Small Pox, by Dr. Emanuel Timonnis and Jacobus Pylarini, with Remarks on the Lawfulness of the Method." (16mo, pp. 22. Boston.)

Benjamin Colman published "Some Observations on the new method of receiving the Small Pox by Ingrafting or Inoculation." (12mo, pp. 16. Boston.)

A Mr. Grainger wrote "The Imposition of Inoculation as a Duty religiously considered." (12mo, pp. 18. Boston.)

The two following letters were among the effusions put forth:

(1) "A Letter to a Friend in the Country, attempting a Solution of the Objections against Inoculation." (8vo. Boston.)

(2) "A Letter from one in the Country to his Friend in the City; in Relation to the Distress occasioned by Inoculation." (8vo. Boston.)

Cotton Mather produced two articles on the subject of Inoculation:

(1) "A Solution of the Scruples of a Religious or Conscientious Nature against Inoculation." (12mo. Boston.)

(2) "An Account of the Method and further Success of Inoculation for the Small Pox in London." (8vo. Boston.)

Increase Mather wrote "Some further Account from London of the Small Pox inoculated; with some further Remarks on a late scandalous Pamphlet entitled Inoculation, &c." (2d ed., 16mo, pp. 8. Boston), and also "Several Reasons proving that Inoculation is a Lawful Practice, &c." (Single sheet, folio. Boston.)

John Williams wrote "Arguments proving that Inoculation of Small Pox is not contained in the Law of Physics, either natural or divine, and therefore unlawful. With a Reply to Increase Mather." (12mo, pp. 20. Boston.)

An anonymous hand wrote "A Letter to John Williams attempting Solutions to his Scruples respecting Inoculation."

1722. Dr. William Douglass, of Boston, at that time the most prominent medical man of the city, published the three following screeds: "Inoculation of the Small Pox as Practised in Boston, considered in a Letter to A.[lexander] S.[tuart], M.D., F.R.S., in London." (12mo. Boston.) "Inoculation. The Abuses and Scandals of some late Pamphlets in favor of Inoculation modestly obviated, and Inoculation further considered, in a Letter to A.[lexander] S.[tuart], M.D., F.R.S." (12mo. Boston.) "Postscript to the Above, Being a short Answer to Matters of fact, &c. misrepresented in a late doggerel Dialogue (between Academicus and Sawny, &c)." (8vo. Boston.) In the same year John Williams wrote an "Answer to the Letter addressed to him, attempting to remove his Scruples respecting Inoculation for the Small Pox." (16 mo, pp. 18. Boston.)

1723. There was published in this year an edition of a book which went through many subsequent editions and would appear to have had a large sale,—namely, “Curiosities of Common Water; Or the Advantages thereof in Preventing and Curing many Distempers, by John Smith, printed by S. Keimer of Philadelphia.”

1724. Dr. Darby Dawne published “Health, a Poem, Shewing how to Procure, Preserve and Restore it. To Which is annexed The Doctors Decade. 4th edition, Corrected.” (Small 4to, pp. 27. Boston.)

Samuel Keimer printed a book the title of which sounds interesting, “Distinct Notions of the Plague.” I have been unable to see a copy or learn anything concerning the nature of its contents.

1726. Inoculation literature continued to flourish for many years after the first introduction of the practice. In this year Increase Mather wrote “Several Reasons for proving that Inoculating or Transplanting the Small Pox is a lawful Practice, and that it has been blessed by God for the saving of many a Life.”

1728. Dr. Zabdiel Boylston, the first to inoculate in America, published a “History of the Small Pox Inoculated in New England.”

In 1730 he again issues “History of the Small Pox Inoculated in New England upon all sorts of Persons. With Directions to the Inexperienced. Dedicated to her Royal Highness the Princess of Wales.” This resulted in the publication of a “Letter to Dr. Zabdiel Boylston, occasioned by a late Dissertation concerning Inoculation of the Small Pox.”

Benjamin Colman wrote a “Narrative of the Success and Method of Inoculating the Small Pox in New England, with a Reply to the Objections against it from Principles of Conscience.”

William Cooper also came to the support of inoculation in a "Reply to the Objections against taking the Small Pox in the Way of Inoculation."

Dr. Douglass continued to attack the practice, and published two articles against it,—viz., "A Practical Essay concerning the Small Pox, &c.," and "A Dissertation concerning the inoculation of the Small Pox."

There was also published in this year "Inoculation, A Dissertation concerning Inoculation of the Small Pox. Giving some Account of the Rise, Progress, Success, Advantages, and Disadvantages of receiving the small Pox by Incisions. Illustrated by sundry Cases of the Inoculated," and "A Sermon preached at St. Andrews, Holborn, July 8, 1722, by Rev. Edmund Massey, against the Dangerous and Sinful Practice of Inoculation." The latter was reprinted from the third English edition.

In 1730 was also published a book which had a wide circulation,—namely, "The American Instructor; or Young Man's Best Companion. To which is added, the Poor Planters Physician; with prudent Advice to young Tradesmen." This edition was reprinted at Philadelphia. Where it was first put forth I do not know, but it went through many subsequent editions.

A curious little publication was an "Elegy on the Death of that Ancient, Venerable, and Useful Matron and Midwife, Mrs. Mary Broadwell, who rested from her labours Jan. 2, 1730, aged 100 years and one day." Published at Philadelphia.

1732. This year Benjamin Franklin reprinted at Philadelphia a book originally printed in London, which rejoiced in the following title: "The Horrour of the Gout; Or a Rational Discourse demonstrating that the Gout is one of the greatest Blessings which can befall Mortal Man; that all Gentlemen who are weary of it are

their own Enemies; that those practitioners who offer at the Cure are the vainest and most mischievous Cheats in Nature. By way of a Letter to an Eminent Citizen. Wrote in the heat of a violent Paroxysm, and now published for the Common Good. By Philander Misiatrus." This is a very witty and amusing publication, giving us an idea of what gout meant to its sufferers in those days.

Thomas Harward published "Electuarium Novum Alexipharmacum, A new Cordial, Alexiterical and Restorative Electuary." It was in twenty-six pages, octavo, and was a treatise on pharmacy. Harward was a clergyman.

John Walton published at Boston an "Essay on Fevers."

1733. The Rev. Samuel Hall published "Bitter Afflictions remembered and improved. Sermon occasioned by the raging of the Small Pox in New Cheshire." It was issued at New London.

1734. Benjamin Franklin published a new edition of the "Poor Planters Physician," under the title of "Every Man his own Doctor; or the Poor Planters Physician. Prescribing plain and easy Means for Persons to cure themselves of all, or most of the Distempers incident to this Climate, and with very little Charge, the Medicines being chiefly of the Growth and Production of this Country." It must have given pleasure to the practical Franklin to print a book of such great utility. Hildeburn² says of it,—

"This popular work was probably written by John Tennent, and was first printed at Williamsburg. It was imprinted by Franklin in 1736, and incorporated in the ninth edition of Fisher's 'American Instructor,' Philadelphia, 1748. A translation into German was published in 1749."

² The Issues of the Press in Pennsylvania.

1736. Dr. William Douglass published "A Practical History of a new Epidemic, Eruptive, Miliary Fever, which prevailed in Boston in the years 1735 and 1736."

Jabez Fitch published an "Account of the Throat Distemper, then prevalent in Newhampshire." This "distemper" was diphtheria, and was identical with the fever described by Douglass.

Dr. John Tennent published an "Essay on the Pleurisy" at Williamsburg, Virginia.

1737. John Brown published a "Relation of some of the remarkable Deaths among the Children of Haverhill, under the late Distemper in the Throat; with an Address to the Bereaved." (Boston.) This was the same epidemic of which Fitch and Douglass wrote.

1738. We find William Cooper writing a "Reply to the objections which have been made against Inoculating for the Small Pox." (8vo. Boston.)

Joseph Emerson published "A Word to those that are afflicted very much. A sermon in Malden, Oct. 20th, 1738. On the repeated Deaths of Children in said Town, by the Throat Distemper." (8vo, pp. 26. Boston.)

1739. This year we find only an anonymous "Letter about a Good Management under the Distemper of the Measles, at this time spreading in the Country," which was published at Boston.

1741. Dr. Cadwallader Colden, of New York, published an "Essay on the Iliac Passion," which was printed by Benjamin Franklin.

Dr. Benjamin Cole published a "Dissertation on Inoculating for the Small Pox" at New London.

1743. In this year Dr. John Lining published, in the "Transactions of the Royal Society of London," an article containing the results of a series of experiments made upon himself in the year 1740. Norris says these experi-

ments were among the most valuable of their kind that have ever been published. Throughout the whole of the year 1740 he made careful observations upon himself, ascertaining his weight each morning and evening, together with the weight of his food, and of his urinary and alvine discharges. Dr. Lining was a Scotchman, who came to America in 1730 and settled in Charleston, South Carolina. He was a correspondent of Benjamin Franklin's, and was the first person to bring an electrical apparatus into South Carolina. In 1753 he published in the "Edinburgh Essays and Observations" an account of the "American Yellow Fever."

1745. "The Art of Preserving Health, A Poem, in Four Books, by John Armstrong," was reprinted at Philadelphia. I have a copy of this most prosy and uninteresting medical compend in poetry in my possession. It merely recites the rules of hygienic living necessary to health. The author was an English physician, a great friend of Thomson, the poet.

There was also published out of Bishop George Berkley's famous book "An Abstract from his Treatise on Tar Water, adapted to Diseases frequent in America. By a Physician."

Dr. Thomas Cadwalader published his "Essay on the West India Dry Gripes. With the Method of Preventing and Curing that Cruel Distemper. To which is added an Extraordinary Case in Physick." (4to. Philadelphia.) It was printed by Benjamin Franklin.

Dr. George W. Norris³ says "West India Dry Gripes" resulted from our forefathers' habit of drinking punch.

"This beverage was made from Jamaica Rum, and was the fashionable drink, until pointed out as giving rise to the disease in

³ Early History of Medicine in Philadelphia.

question, which it did, in consequence of containing poisoning qualities derived from the leaden pipes which were used in its distillation."

The curious case was one of osteomalacia.

Dr. Cadwallader Colden published in this year "An Essay on Yellow Fever."

1748. An anonymous work published at Boston this year was entitled "A Treatise proving that most of the Diseases incident to the Fair Sex are owing to Flatulencies not seasonably vented."

1749. The Rev. Thomas Prince, following the example of his ecclesiastic predecessor, Bishop Berkley, wrote a "Narrative of the Success of Tar Water." (8vo, pp. 90. Boston.) He also wrote an appendix to Thomas Prior's "Authentic Narrative of the Success of Tar Water."

Somewhere about 1749 or 1750 Dr. John Bard wrote an "Essay on the Nature of the Malignant Pleurisy that proved so remarkably fatal to the Inhabitants of Huntington, Long Island, and some other places on Long Island, in the winter of 1749. Drawn up at the request of a Weekly Society of Gentlemen in New York, and addressed to them at one of their meetings." There is nothing to indicate that this work, the manuscript of which is in the Library of the New York Academy of Medicine, was published, though the statement is sometimes made that it was so. Dr. Bard was a very distinguished man. In 1760 he published in the *London* (England) *Medical Observations and Inquiries* "A Case of Extra-Uterine Fœtus."

1750. Philadelphia became the centre of a medical controversy this year which caused quite a literary battle to ensue.

A Scotch physician, Dr. Adam Thompson, who had

emigrated to Maryland and later had settled in Philadelphia, published "A Discourse on the Preparation of the Body for the Small Pox; And the Manner of receiving the Infection. As it was deliver'd in the Publick Hall of the Academy before the Trustees, and others. on Wednesday. the 21st of November, 1750," which was printed by Franklin. In it he advocated giving the patient to be inoculated 'a preparatory course of antimony and mercury. He said his idea was founded upon the teachings of Boerhaave.

1751. Dr. John Kearsley, famous as the architect of the State House and Christ Church, published in this year "A Letter to a Friend; Containing Remarks on a Discourse Proposing a Preparation of the Body for the Small Pox. And the Manner of receiving the Infection. With some Practical Hints relating to the Cure of the Dumb Ague, Lung Fever, the Bilious Fever, and some other Fevers, incidental to this Province." It was printed by Franklin. A reply to this was issued in "A Defence of Doctor Thompson's Discourse on the Preparation of the Body for the Small Pox, etc. Wherein everything that has yet been advanced against it is fairly examined; particularly Dr. Mead's Censure of Dr. Boerhaave's opinion concerning a specific Antidote, and Mr. Kearsley's Remarks. In a letter to a Physician in Philadelphia, By Alexander Hamilton, Physician at Annapolis, in Maryland." This came from the press of William Bradford.

In this year was printed by Franklin a book with the following comprehensive summary of its contents as a title: "Medicina Britanica; Or a Treatise on such Physical Plants as are Generally to be found in the Fields or Gardens in Great Britain; Containing a particular Account of their Nature, Virtue, and Uses. To-

gether with the Observations of the most learned Physicians, as well ancient as modern, communicated to the late Mr. Ray, and the learned Dr. Sim. Pauli, Adapted more especially to the Occasions of those whose Condition or Conditions or Situation of Life deprives them, in a great Measure of the Helps of the Learned. By Tho. Short, of Sheffield, M.D. To which is added, An Appendix; Containing the True Preparation, Preservation, Uses and Doses of most Forms of Remedies necessary for private Families. The Third Edition.—With a Preface by Mr. John Bartram, Botanist of Pennsylvania, and his Notes throughout the Work, shewing the Places where many of the described Plants are to be found in these Parts of America, their Differences in Name, Appearance and Virtue, from those of the same Kind in Europe; and an Appendix, containing a Description of a Number of Plants peculiar to America, their Uses, Virtues, &c."

1752. In this year there was published at Boston a "Sermon before the President, &c, of the Hospital for the Small Pox, and for Inoculation, March 5, 1752," by the Rev. Isaac Maddox.

Nathaniel Williams published in Boston "The Method of Practice in the Small Pox; with Observations on the Way of Inoculation."

1753. Dr. John Lining published his famous "History of the Yellow Fever." It was published at Charleston, South Carolina, and is the first medical publication in the Southern States.

In the *Pennsylvania Gazette* for February 20 of this year and in subsequent numbers there were advertised "Proposals for printing by Subscription, Lectures on the most important Branches of Physick; Calculated for Students in that Science. Wherein a Theory is laid

down, and a Practice established on rational Principles, as well as from Experience, and a just Observation of Facts, founded on the Histories of the several Diseases. The whole adapted to the Climate of North America. To be in 2 vols. 8vo, containing upwards of 400 pages each."

1754. Dr. John Fothergill's "Life and Travels in the Work of the Ministry" was reprinted in Philadelphia.

Benjamin Franklin wrote and printed "Some Account of the Pennsylvania Hospital; from its First Rise, to the Beginning of the Fifth Month, called May, 1754." This little book was written for circulation through the colonies and in Great Britain in order to procure subscriptions to the Hospital, which had been started in 1751 and was on the point of moving to a new site, which it has occupied ever since.

1756. In this year smallpox was epidemic in Philadelphia, and Dr. Laughlin Macleane published "An Essay on the Expediency of Inoculation, and the Season most proper for it. Humbly inscribed to the inhabitants of Philadelphia." There is an interesting account of this Dr. Macleane in Graydon's Memoirs. He had studied medicine at Edinburgh, where he knew Oliver Goldsmith, and had come to America as a surgeon in the British army. He left the army and had a drug-store in Second Street near High, with a "Golden Pestle" as the sign. He went back to Edinburgh, became a member of Parliament, and was then appointed collector of the port of Philadelphia. He soon left America, however, and again returned to England, from whence he went out to India, and served Warren Hastings in a confidential capacity.

1760. In Boston was published "Small Pox, Directions concerning Inoculation." (A small 12mo.)

In this year in Philadelphia there was published "The Case of Mr. T.[homas] L.[awrence] with regard to the Method pursued therein by J.[ohn] K.[earsley], Senior, Surgeon, with the uncommon Treatment the said J. K. hath met with, in his Procedure therein." I cannot find out what this had reference to. It is probably some ancient piece of scandal, which it is just as well should be forgotten.

1761. Dr. Sylvester Gardiner, a celebrated physician, who in the War for Independence was a Tory, and had his goods seized by Dr. John Morgan for the benefit of the patriots, issued a "Proposal to Build an Inoculating Hospital for Small Pox at Boston — Addressed to the Freeholders, and other Inhabitants of that Town, March, 1761.

Benjamin Grosvenor published at Boston "Health; An Essay on its Nature, Value, Uncertainty, Preservation, and Best Improvement." This was the third edition.

In Philadelphia, Benjamin Franklin published a second edition of his "Account of the Pennsylvania Hospital," bringing it down to May, 1761.

1763. At Germantown, Pennsylvania, was issued "The Plague in London. The Dreadful Visitation; in a short Account of its Progress and Effects in the year 1665, &c." (12mo, 16 pp.)

1764. In this year Dr. Alexander Garden, of Charleston, South Carolina, published "An Account of the Medical Properties of Pink-Root." Dr. Garden was a Scotchman, who had studied at Edinburgh and Aberdeen. In 1774 he was elected a Fellow of the Royal Society of London. The well-known plant *Gardenia* was named in honor of him by Linnæus, the famous Swedish botanist. He had a consumptive tendency, and during the latter

part of his life he travelled much through Europe in search of health. In his travels he met many famous scientists, who everywhere hailed him with cordiality, his botanical and philosophical researches having given him a world-wide reputation. He died in London in 1792, aged about sixty-four years.

1765. Dr. Cadwallader Colden published a "Treatise on Wounds and Fevers." This book was long regarded as a standard authority in this country. It is continually referred to and quoted by medical authors.

Dr. John Jones published at New York, about this year (1765), a treatise entitled "Observations on Wounds." This book I have no information concerning except the bare statement that it was published, made by Thomas in his "History of Printing in North America."

In this year the famous John Morgan published "A Discourse Upon the Institution of Medical Schools in America; Delivered at a Public Anniversary Commencement, held in the College of Philadelphia May 30 and 31, 1765. With a Preface Containing, amongst other things, The Author's Apology for attempting to introduce the regular mode of practising Physic in Philadelphia; By John Morgan, M.D.; Fellow of the Royal Society at London; Correspondent of the Royal Academy of Surgery at Paris; Member of the Arcadian Belles Lettres Society at Rome; Licentiate of the Royal College of Physicians in London and in Edinburgh; and Professor of the Theory and Practice of Medicine in the College of Philadelphia, Philadelphia. Printed and sold by William Bradford, at the corner of Market and Front Streets, 1765." To Dr. Morgan has been justly given the title of Founder of American Medicine. In this address he tells of the founding of the medical school of what is now the University of Pennsylvania.

Dr. Benjamin Church published an "Elegy upon the Times," a patriotic complaint of the miseries suffered by the Americans. Dr. Church was at the outbreak of the Revolution probably the best-known medical man in New England. He was appointed to the head of the medical department of the Continental army, but was soon after caught in treasonable correspondence with the English and dismissed. He wrote many pieces both in poetry and prose.

1766. Dr. Church published an "Elegy on the Death of Dr. Jonathan Mayhew."

1767. In this year there was a famous suit between Dr. Sylvester Gardiner, of Boston, and James Flagg, and the following list of publications bearing upon it were issued:

"Dr. Gardiner versus James Flagg, Merchant."

"Address to the Public" (in answer to the above).

"Dr. Gardiner's Statement in Relation to the Case between him and James Flagg."

"Short Vindication of the Conduct of the Referees in the Case of Gardiner vs. Flagg."

"A Full Answer to the Pamphlet entitled 'A Short Vindication of the Referees.'"

"Letter to Messrs. Edward Payne and Henderson Inches (Referees)."

"Letters to the Public," etc.

In the subsequent year was published "Gardiner, Sylvester, vs. Flagg, James. Two Pamphlets relating to the Proceedings of the Referees in the Case."

There was published at Philadelphia in this year "An Essay on Inoculation for the Small Pox. Wherein the Nature of the Disease is explained, the various Methods of Preparation that have been practised in America are critically examined, and that which the Author has found,

from his own experience, to be most successful, is clearly laid down. With an Appendix containing a Chirurgical Examination of Mr. Sutton's Medicines. By Thomas Ruston, M.D."

1768. In this year Lionel Chalmers published at Charleston, South Carolina, "An Essay on Fevers." Dr. Chalmers after graduating from the University of Edinburgh came to America and settled in South Carolina. In 1754 he communicated a paper on "Opisthotonus and Tetanus" to the Medical Society in London (England), which was published in the first volume of Transactions put forth by the Society. In 1776 he published in London a "Treatise on the Weather and Diseases of South Carolina."

1769. Dr. John Mitchell in this year published his book on the "Principles of Botany." He was an Englishman, who came to America in 1700, settling in Virginia. In 1743 he published in the "Philosophical Transactions of London" an "Essay on the Causes of the Different Colours of People of Different Climates." He wrote an excellent account of the "Yellow Fever in Virginia in 1741 and 1742," but it was not published in his lifetime. At his death it fell into the hands of Benjamin Franklin, and he gave it to Dr. Rush, who in turn gave it to Dr. Hosack, by whom it was finally published in the *American Medical and Philosophical Register* for 1814, vol. iv.

In 1769 was published an address entitled "An Historical Inquiry into the Ancient and Present State of Medicine," by Dr. Peter Middleton. It was delivered at the opening of the Medical School of New York in that year. Dr. Middleton was a Scotchman, who came to America and practised medicine in the city of New York. In 1750 he and Dr. John Bard injected a body and dissected

it. He was the first professor of Physiology and Pathology in the Medical College of New York. In the ninth volume of the *Medical Repository* there is published a letter by him to Dr. Richard Bayley on Croup. Dr. Middleton died in 1781.

Dr. Samuel Bard delivered an address at the Commencement exercises of King's College, New York, in 1769, which was published in the same year, under the title of "A Discourse on the Duties of a Physician." In this address he urged strongly the necessity of founding a hospital in the city. Dr. Bard was a native of Philadelphia, where he was born in 1742. His father was the well-known Dr. John Bard.

In 1769 there was published in New York the thirteenth edition of a work entitled "Primitive Physick, or an easy and natural Method of curing most Diseases," by Dr. John Wesley.

The Bradfords printed in this year "Observations on the Angina Maligna; or the Putrid and Ulcerous Sore Throat, with a Method of Treating it. By a Lover of Pennsylvania." The author is supposed to have been Dr. Benjamin Rush. Hildeburn⁴ quotes W. F. Atlee as saying that the treatment of this disease, which we now term diphtheria, "is admirable. The treatment ordered is very remarkable, inasmuch as it denounces bleeding in all cases of the disease, and is the one generally adopted nowadays."

Dr. Jacob Ogden, who was born in New Jersey, graduated from Yale College and practised medicine at Jamaica, Long Island, wrote a letter on the "Malignant Sore Throat Distemper," addressed to Mr. Hugh Gaine. It was printed in the fifth volume of the *Medical Reposi-*

⁴ Issues of the Press in Pennsylvania.

tory of New

letter was dated

on the same

John Kearsley

many Facts, re-

Flower, Esq., p-

jured Reputation.

by Dr. John Kear-

Kearsley also pub-

Magazine of London

1771. Dr. Samuel

the Nature, Cause and

Sore Throat Distemper.

William Cadogan pub-

Gout, and all Chronic Dis-

ceeding from the same Cause.

And a Rational and Natural

James Tilton published it

with the title "Dissertatio

Sub Moderamine Viri admi-

Smith, S.T.D. Collegii et A-

Præfacti, Ex Curatorum Auct-

non Amplissimæ Collegii et Acade-

Deo optimo maximo ammente, Pro-

misque in Medicina Honoribus et

time consequendio Eruditorum Exar-

tinuit Jacobus Tilton, M.B. Doveribus

S. A. Tissot published "Advice to

their Health."

T. Dimsdale wrote an article entitled

Method of Inoculating for the Small P-

are added some Experiments instituted w-

discover the Effects of a similar Treatment

ral Pox."

1772. In this year was published in Boston the tenth edition of William Cadogan's "Essay on the Nursing and Management of Children." There was another edition also printed at Philadelphia.

Benjamin Rush published "Sermons to Gentlemen on Temperance and Exercise."

There was also published "A Funeral Eulogium Sacred to the Memory of the late Reverend William Ramsay, by Jonathan Elmer, M.D."

1773. Dr. Benjamin Church delivered the "Annual Oration in Commemoration of the Boston Massacre" on March 5. Thacher says it "discovers a rich fancy; it is certainly one of the very best of the 'Boston Orations.'"

There was reprinted in this year "The History of Inoculation, by M. de La Condamine," which had been first published in 1754.

Dr. Benjamin Rush published "Experiments and Observations on the Mineral Waters of Philadelphia, Abington and Bristol, Pa. Read June 18, 1773, before the American Philosophical Society—Philadelphia." Hildburn⁵ says,—

"The waters of Abington and Bath, near Bristol, were much resorted to till near the middle of the present century. The fame of the *supposed* 'Philadelphia Mineral Water,' on the disagreeable taste and fetid smell of which Dr. Rush has much to say, was short-lived. The true causes of these qualities being discovered to arise not from mineral sources, but from one which put an immediate stop to the use of the water, and made its advocates and their disciples a subject of ridicule."

Dr. Rush also published "An Address to the Inhabitants of the British Settlements on the Slavery of Negroes in America (2d Ed.). To which is added a Vindication

⁵ Issues of the Press in Pennsylvania.

of the Address in Answer to a Pamphlet entitled 'Slavery not forbidden in Scripture; or a Defence of the West Indian Planters.' By a Pennsylvanian."

1774. In this year was published a work which was more used than any other book of its kind ever has been or ever will be,—viz., "Domestic Medicine; or the Family Physician; Being an Attempt to render the Medical Art more generally useful by shewing people what is in their own power both with respect to the Prevention and Cure of Diseases. Chiefly Calculated to recommend a proper attention to Regimen and Simple Medicines, By William Buchan, M.D., of the Royal College of Physicians, Edinburgh. The 2nd American Edition with considerable Additions by the Author."

Benjamin Rush published "An Oration Delivered February 4, 1774, before the American Philosophical Society, held at Philadelphia. Containing an Enquiry into the Natural History of Medicine among the Indians in North America, and a comparative View of their Diseases and Remedies, with those of civilized Nations. Together with an Appendix containing Proofs and Illustrations."

1775. In this year Robert Bell, a publisher of Philadelphia, issued "Proposals for Printing by Subscription, Lectures on the Duties and Qualifications of a Physician with the Elements of the Practice of Physic. By John Gregory, M.D." The same publisher also printed "Lectures on the Materia Medica, as delivered by William Cullen, M.D., Professor of Medicine in the University of Edinburgh. Now Published by Permission of the Author, and with many Corrections from the Collation of different Manuscripts by the Editors." This work went through subsequent editions, and Cullen's Practice was published by Bell in 1781.

John Hill published at Philadelphia "The Old Man's Guide to Health and Longer Life; with Rules for Diet, Exercise, and Physic."

A most important work appeared this year, which served as a text-book for the military surgeons in the ensuing war. This was "Plain, Concise, and Practical Remarks on the Treatment of Wounds and Fractures," by John Jones, M.D. It was intended as a guide on military surgery, and was a most excellent book for its purpose. Three editions were published of it; the second in 1776 and the third in 1795. Dr. Jones had studied medicine under Dr. Thomas Cadwalader, of Philadelphia, and his book is dedicated to him in terms of warm admiration. After completing his studies with Dr. Cadwalader Dr. Jones went abroad, and pursued his medical studies in London, Edinburgh, Leyden, and France. He received the degree of M.D. from the University of Rheims. He performed the first lithotomy ever done in the city of New York, and was Professor of Surgery in the Medical School of New York. In 1780 he removed to Philadelphia, and succeeded to Dr. John Redman's place as one of the physicians to the Pennsylvania Hospital. He was one of the founders of the College of Physicians of Philadelphia and its first vice-president. He was a friend of Benjamin Franklin, and attended that great man in his last illness, afterwards publishing a very interesting account of the philosopher's last hours. Dr. Jones died in June, 1791, in the sixty-third year of his age.

CHAPTER X.

MEDICAL LEGISLATION IN THE COLONIES.

THE laws passed by the various colonial Legislatures bearing upon the practice of medicine have been transcribed from the archives of the different States by Toner,¹ Wickes,² and S. A. Green.³ To those which are given in their pages I have been able to add a few, but the field is well covered by their researches.

One of the earliest laws passed by any of the colonies in relation to medical men is the act passed by Virginia in 1639, which was revised at the session of the Assembly in 1645-46:

"Whereas by the ninth act of Assembly, held the 21st of October, 1639, consideration being had and taken of the immoderate and excessive rates and prices exacted by practitioners in physick and chirurgery and the complaints made to the Assembly of the bad consequence thereof, it so happening through the said intollerable exactions that the hearts of divers masters were hardened rather to suffer their servants to perish for want of fit means and applications than by seeking relief to fall into the hands of griping and avaricious men; be apprehended by such masters, who were more swayed by politick respects than Xian [Christian] duty or charity, that it was more gainfull and saving way to stand to the hazard of their servants than to entertain the certain charge of a physitian or chirurgeon, whose demands for the most parte exceed the purchase of the patient. It was therefore enacted for the better redress of the like abuses thereafter, untill some fitter course should be advised on, for the regulating physitians and chirurgeons within the

¹ Contributions to the Annals of Medical Progress.

² History of Medicine in New Jersey.

³ Centennial Address on the History of Medicine in Massachusetts.

colony, that it should be lawful and free for any person or persons in such cases where they should conceive the acco't of physitian or chirurgeon to be unreasonable, either for his pains or for his druggs or medicines, to arrest the said physitian or chirurgeon either to the quarter-court, or county-court where they inhabitt, where the said physitian should declare upon oath the true value, worth, and quantity of his druggs and medicines administered to or for the use of plt. [patient]. Whereupon the court where the matter was tryed was to adjudge and allow to the said physitian or chirurgeon such satisfaction and reward as they in their discretions should think fitt. And it was further ordered, that when it should be sufficiently proved in any of the said courts that a physitian or chirurgeon had neglected his patient, or that he had refused, being thereunto required, his helpe or assistance to any person or persons in sickness or extremity, that the said physitian or chirurgeon should be censured by the said court for such his neglect or refusal, which said act and every clause therein mentioned and repeated, this present Grand Assembly to all intents and purposes doth revive, ratifie, allow, and confirme, with this only exception that plts [patients] shall have their remedy at the county courts respectively, unless in case of appeal."

The same State enacted three more laws bearing on the practice of medicine during the seventeenth century: (1) "An Act regulating Chirurgeons accounts," in 1662; (2) "An Act allowing Chirurgeons accounts to be pleaded after decease of the party," 1662; (3) "An Act relating to Physicians and Chirurgeons accounts," 1691.

In 1722 the State of Virginia passed an "Act to oblige Ships coming from places infected with the plague to perform their quarantine."

In 1736 the Virginia Assembly passed "An Act regulating the fees and accounts of the practicers in physic."

"(1) *Whereas* the practice of physic in this colony is most commonly taken up and followed by surgeons, apothecaries, or such as have only served apprenticeships to those trades, who often prove very unskillful in the art of a physician; and yet do demand excessive fees and exact unreasonable prices for their medicines which

they administer, and do too often, for the sake of making up long and expensive bills, load their patients with greater quantities thereof, than are necessary or useful, concealing all the compositions, as well to prevent the discovery of their practice, as of the true value of what they administer; which is become a grievance, dangerous and intolerable, as well to the poorer sort of people, as others, & doth require the most effectual remedy that the nature of the thing will admit.

"(II) *Be it therefore enacted by the Lieutenant-Governor, Council, and Burgesses of the present General Assembly, and it is hereby enacted, by the authority of the same, That from and after the passing of this Act, no practicer in physic, in any action or suit whatsoever, hereafter to be commenced in any court of record in this Colony, shall recover, for visiting any sick person, more than the rates hereafter mentioned: that is to say—*

"Surgeons and apothecaries who have served an apprenticeship to those trades, shall be allowed:

	£	s.	d.
For every visit and prescription in town, or within five miles.....	0	5	00
For every mile above five and under ten.....	0	1	00
For every visit of ten miles.....	0	10	00
For every mile above ten.....	0	00	00
With an allowance of all ferriage in their journeys.			
To surgeons, for a simple fracture and cure thereof	2	00	00
For a compound fracture and cure thereof.....	4	00	00
But those persons who have studied physic in any university, and taken any degree therein, shall be allowed for every visit and prescription in town or within five miles.....			
	0	10	00
If above five miles, for every mile more under ten..	0	1	00
For a visit, if not above ten miles.....	1	00	00
And for every mile above ten.....	0	1	00

"(III) And to the end the true value of the medicine administered by any practicer in physic, may be better known, and judged of, *Be it further enacted by the authority aforesaid, That whenever any pills, bolus, potion, draught, electuary, decoction, or any medicine, in any form whatsoever, shall be administered to any sick person, the person administering the same shall, at the same time, deliver in his bill, expressing every particular thing made up therein; or if the medicine administered be a simple, or compound, directed in the dispensatories, the true name thereof shall be expressed in the same bill, together with the quantities and prices, in*

both cases. And in failure thereof, such practicer, or any apothecary, making up the prescription of another, shall be nonsuited, in any action or suit hereafter commenced, which shall be grounded upon such bill or bills: Nor shall any book, or account, of any practicer in physic, or any apothecary, be permitted to be given in evidence, before a court; unless the article therein contained, be charged according to the direction of this act.

"(IV) *And be it further enacted, by the authority aforesaid,* that this act shall continue and be in force, for and during two years, next after the passage thereof and from thence to the end of the next session of assembly."⁴

In 1769 Virginia passed an "Act to regulate the inoculation of small pox within the colony." This act was amended in 1777.

In 1649 an attempt was made to regulate the practice of medicine in Massachusetts by the passage of the following law:⁵

"CHIRURGEONS, MIDWIVES, PHYSITIANS

"Forasmuch as the Law of God allowes no man to impair the Life, or Limbs of any Person, but in a judicial way;

"*It is therefore Ordered,* That no person or persons whatsoever, employed at any time about the bodye of men, women, or children, for preservation of life, or health; as Chirurgeons, Midwives, Physitians or others, presume to exercise, or put forth any act contrary to the known approved Rules of Art, in each Mystery and occupation, nor exercise any force, violence or cruelty upon, or towards the body of any, whether young or old, (no not in the most difficult cases) without the advice and consent of such as are skillful in the same Art, (if such may be had) or at least some of the wisest and gravest then present, and consent of the patient or patients if they be mentis compotes, much less contrary to such advice and consent; upon such severe punishment as the nature of the fact may deserve, which Law nevertheless, is not intended to discourage any from all lawfull use of their skill, but rather to

⁴ Transcribed by Toner in his "Contributions to the Annals of Medical Progress," from Henning's Statutes.

⁵ Ancient Charters and Laws of Massachusetts, p. 76. Also quoted by Green, "History of Medicine in Massachusetts," and by Toner, "Annals of Medical Progress."

incourage and direct them in the right use thereof, and inhibit and restraine the presumptuous arrogancy of such as through presidence of their own skill, or any other sinister respects, dare boldly attempt to exercise any violence upon or towards the bodyes of young or old, one or other, to the prejudice or hazard of the life or limbe of man, woman, or child."

Green⁶ quotes a petition, which is in the Massachusetts Archives, assigned to the date 1653, and is of much interest. It is as follows:

"TO THE HONORED COURT.

"Whereas there be many Chirurgions that came over in the ships into this Bay, & here practise both physick and Chirurgery to the hazarding of the lives & limbes of some, & the detriment of many, being unskilled in those Arts. May it please this Honored Court to take into Consideration whether such ought not to be restrained, & that first they may be exercised by the skilfull & authorised Phisitians & Chirurgions in this towne, & then being found skilfull, & approved by them may by some Magistrates be licensed to practise the time they are resident here, but if any one shall presume on shore to practise wthout liberty granted, that some fine may be imposed vpon him for every such default according to your discretion."

In 1699 the General Court of Massachusetts passed "An Act to prevent the spread of infectious sickness." In 1701 it passed an act "authorizing the selectmen to provide for those sick with contagious diseases." Massachusetts enacted more laws to prevent the spread of contagious diseases than any other colony, as the following list will show.

In the summer of 1716 a committee was appointed by the General Court of Massachusetts to select a site for an isolation hospital for quarantine purposes. It was proposed to locate it on Spectacle, or else on Squantum Island, but the owner of the former asked an exorbitant price for his island, and the towns of Dorchester and

⁶ History of Medicine in Massachusetts.

Braintree protested so vigorously against the use of Squantum for the purpose that it, too, had to be abandoned. The next year, however, Spectacle Island was secured and a hospital erected on it, which served its purpose until 1737, when the location was changed to Rainsford Island, where it continued until 1847, when it was transferred to Deer Island, from whence, in 1867, it was transferred to Gallop's Island, where it continues.

In 1730 the General Court passed "An Act empowering courts to adjourn and remove from towns appointed by law for holding courts, in case of sickness by the smallpox." In 1731 an act was passed "to prevent persons concealing the smallpox, and requiring a red cloth to be hung out in all infected places."

In 1742 was passed "An Act to prevent the spreading of the smallpox, and other infectious diseases and concealing the same."

In 1743 an act was passed "regulating the hospital on Rainsford Island, and further providing in case of infectious sickness."

In 1750 an act was passed "to regulate the importation of Germans and other passengers, coming to settle in this Province, providing that sufficient provisions and room be given them to prevent the contraction of disease."

In 1758 a supplementary quarantine act was passed, enabling magistrates to seclude those suffering from contagious diseases on Rainsford Island.

The above shows certainly a very earnest desire to confine contagious diseases within as close limits as possible.

In some letters of John Hancock's[†] recently published there is one containing a reference to the annoyance he experienced in consequence of the quarantine enforced

[†] John Hancock. His Book, by Abram English Brown.

on a brig consigned to him, in which smallpox had developed on the voyage from England. He says,—

“I should be glad the masters would be carefull, who they take on board as passengers, for this misfortune of the smallpox on board the Brig, was wholly owing to a Negro Servant of Mr. Williams, who had just recovered of that disorder; this will create us an Expençe of £50. stg.”

The letter is dated December 6, 1764.

In 1781 the act incorporating the Massachusetts Medical Society was passed.

Toner gives the following list of laws enacted during the colonial period in Connecticut relating to the practice of medicine: “An Act to prevent the small-pox being spread in this colony by pedlars, hawkers, petty chapmen,” enacted 1722; physicians and chirurgeons to be exempt from performing military duty, enacted in the bill regulating the militia in 1722; physicians and chirurgeons to be taxed and rated as others, enacted 1722; an act amending the act of 1711, enacted 1728; an act providing in all cases of contagious sickness, enacted 1729; an act providing in case of infectious diseases, enacted 1732; an act additive to the act of 1729, requiring that all goods coming from infected places be aired before exposure for sale, enacted 1752; an act additive to the foregoing providing for vessels coming from infected parts, enacted 1756; an act additive to the same, regulating inoculation, enacted 1760; an act additive to the same concerning inoculation, enacted 1761; an act reviving the original act of 1729, with all its additives, enacted 1769; an act for the suppression of mountebanks (dealers in quack medicines), enacted 1773.

Toner only found one law in the colonial statutes of Rhode Island which is of interest in our present inquiry. It was “An act to prevent the spreading of the small-

pox and other contagious diseases in this State." It was first enacted in 1743, and again passed in revised form in 1748.

In the province of New York many laws were enacted at a very early period bearing upon the practitioners of medicine and surgery within its limits.

Toner quotes from the Dutch Records for February 2, 1652, the following quaint minute:

"On the petition of the chirurgeons of New Amsterdam that none but they alone be allowed to shave; the director and council understand that shaving alone doth not appertain exclusively to chirurgery, but is an appendix thereunto; that no man can be prevented operating on himself, nor to do another the friendly act, provided it be through courtesy, and not for gain which is hereby forbidden. It was then further ordered that ship-barbers shall not be allowed to dress any wounds nor administer any potions on shore without the previous knowledge and special consent of the petitioners or at best of Doctor La Montague."

Dr. Johannes La Montague was a member of Governor Kieft's Council, and a man of great eminence and authority in the affairs of the province.

In December, 1657, a city ordinance was passed giving notice

"To all Chirurgeons of the City that when they are called to dress a wound they shall ask the patient who wounded him and that information thereof be given to the Schout" (*i.e.*, sheriff).

In 1665 the Duke of York published a code of laws by which the settlers in the grant made to him the previous year should be governed. This grant included New York, New Jersey, and also Martha's Vineyard and Nantucket. Among these laws we find the following:

"CHIRURGEONS, MIDWIVES, PHYSICIANS — That no person or persons whatever employed about the bodys of men, women, or children for the preservation of life or health, as chirurgeons, midwives, physicians, or others, presume to put forth or exercise any act contrary to the known approved rule of art in each mystery or

occupation, or exercise any force, violence, or cruelty upon or towards the body of any, whether young or old, without the advice and counsel of such as are skilful in the same art, (if such may be had,) or at least of some of the wisest and gravest then present, and consent of the patient, or patients; if they be *mentis compotes*, much less contrary to such advice and consent, upon such severe punishment as the nature of the fact may deserve; which law, nevertheless, is not intended to discourage any from all lawful use of their skill, but rather to encourage and direct them in the right use thereof, and to inhibit and restrain the presumptuous arrogance of such as through confidence of their own skill or any other sinister respects, dare boldly attempt to exercise any violence upon or towards the body of young or old, one or other, to the prejudice or hazard of the life or limb of man, woman, or child."

This law is almost exactly the same as that enacted in Massachusetts in 1649.

On June 10, 1760, the General Assembly of New York passed the following law regulating the practice of medicine in the city of New York:

"Whereas many ignorant and unskilful persons in physick and surgery, in order to gain a subsistence, do take upon themselves to administer physick and practice surgery in the city of New York, to the endangering of the lives and limbs of their patients, and many poor and ignorant persons inhabiting the said city, who have been persuaded to become their patients, have been great sufferers thereby; for preventing such abuses for the future—

"I. *Be it enacted by his honor the lieutenant-governor, the council, and the general assembly, and it is hereby enacted by the authority of the same,* That from and after the publication of this act no one whatsoever shall practice as a physician or surgeon in the said city of New York before he shall first have been examined in physick and surgery, and approved of and admitted by one of His Majesty's council, the judges of the supreme court, the King's attorney-general, and the mayor of the city of New York for the time being, or by any three or more of them, taking to their assistance for such examinations such proper person or persons as they in their discretion shall think fit. And if any candidate, after due examination of his learning and skill in physick and surgery as aforesaid, shall be approved and admitted to practice as a physician and surgeon, or both, the said examiners, or any three or more of them, shall give, under their hands and seals, to the person so

admitted as aforesaid, a testimonial of his examination and admission, and in the form following, to wit:

"To all whom these presents shall come or may concern:

"Know ye, that we, whose names are hereunto subscribed, in pursuance of an act of the Lieutenant-Governor, and Council, and the General Assembly, made and published at New York, the tenth day of June, in the year of our Lord one thousand seven hundred and sixty, entitled 'An act to regulate the practice of physick and surgery in the city of New York,' have duly examined — physician (or) surgeon, or physician and surgeon, (as the case may be,) and, having approved of his skill, have admitted him as a physician (or) surgeon, (or) physician and surgeon, to practice in the said faculty or faculties throughout this province of New York. In testimony whereof we have affixed our seals to this instrument, at New York, this — day of —, anno Domini one thousand —.

"II. *And be it further enacted by the authority aforesaid,* That if any person shall practise in the city of New York as a physician or surgeon, or both as a physician and surgeon, without such testimonial as aforesaid, he shall, for every such offence, forfeit the sum of five pounds, one-half thereof to the use of the person or persons who shall sue for the same and the other moiety to the churchwardens and vestrymen of the said city for the use of the poor thereof, the said forfeiture to be recovered with costs before the mayor, recorder or any one of the aldermen of the said city, who are hereby empowered in a summary way to hear, try, and determine any suit brought for such forfeiture, and to give judgement and to award execution thereupon: *Provided,* That this act shall not extend to any person or persons administering physick or practising surgery within the said city before the publication thereof, or to any person having his Majesty's commission and employed in his service as a physician and surgeon."

Toner gives the titles of the following laws enacted in the colony of Pennsylvania: "An Act to prevent sickly vessels coming into this government," enacted 1700; an act vesting the Province Island, and the buildings thereon erected and to be erected, in trustees, and for providing an hospital for such sick passengers as shall be imported into this province, and to prevent the spreading of infectious distempers, enacted 1742; an act for prohibiting the importation of German or other

passengers in too great quantities in any one vessel, enacted 1749; an act to encourage the establishing of an hospital for the relief of the sick poor of this province, and for the reception and cure of lunatics, enacted 1751; an act regarding the importation of Germans and others, enacted 1765; an act to prevent infectious diseases being brought into this province, enacted 1774.

No medical legislation was attempted in New Jersey, if we except the law included among the enactments of the Duke of York, in 1665, until the incorporation of the New Jersey Medical Society in 1766. In 1772 the Legislature passed the following:

"An Act To Regulate the Practice of Physic and Surgery within the Colony of New Jersey.

"Passed Sept. 26, 1772.

"Whereas many ignorant and unskilful persons in Physic and Surgery, to gain a subsistence, do take upon themselves to administer Physic and practise Surgery, in the Colony of New Jersey, to the endangering of the Lives and Limbs of their Patients; and many of His Majesty's Subjects who have been persuaded to become their Patients have been Suffering thereby; for the Prevention of such Abuses for the future Be It Enacted by the Governor, Council and General Assembly and it is hereby Enacted by the Authority of the same, That from and after the Publication of this act, no Person whatsoever shall practise as a Physician or Surgeon, within this Colony of New Jersey, before he shall have first been examined in Physic and Surgery, approved of, and admitted by any two of the Judges of the Supreme Court, for the time being, taking to their Assistance for such Examination such proper Person or Persons, as they in their Discretion shall think fit, for which service the said Judges of the Supreme Court as aforesaid, shall be Entitled to a Fee of twenty shillings, to be paid by the Person applying, and if any Candidate, after due Examination of his Learning and Skill in Physic or Surgery, as aforesaid, shall be approved and admitted to practise as a Physician or Surgeon, or both, the said Examiners, or any two or more shall give under their Hands and Seals, to the Person so admitted as aforesaid, a Testimonial of his Examination and Admission in the Form following to wit:

"To all to whom these presents shall come or may concern: know ye, that We whose Names are hereunto subscribed, in Pursuance of an Act of the Governor, Council, and General Assembly of the Colony of New Jersey, made in the Twelfth Year of the Reign of our Sovereign Lord King George the Third, Entitled, *An Act to regulate the Practice of Physic and Surgery within the Colony of New Jersey*, having duly examined — of — Physician or Surgeon, or Physician and Surgeon as the case may be, and having approved of his Skill, do admit him as a Physician or Surgeon, or Physician and Surgeon, to practise in the said Faculty or Faculties, throughout the Colony of New Jersey. In Testimony whereof we have hereunto subscribed our Names and affixed our Seals to this Instrument, at — this — Day of — Anno Domini 17—

"2. And be it further enacted by the Authority aforesaid, That if any Person or Persons shall practise as a Physician or Surgeon or both within the Colony of *New Jersey*, without such Testimonial as aforesaid, he shall forfeit and pay for every such Offence the Sum of *Five Pounds*; one Half thereof to the Use of any Person or Persons who shall sue for the same, and the other Half to the Use of the Poor of any City or Township where such Person shall so practise contrary to the Tenor of this Act; to be recorded in any Court where Sums of this Amount are cognizable, with Costs of Suit.

"3. Provided Always, that this Act shall not be construed to extend to any Person or Persons administering Physic or practising Surgery before the publication hereof, within this Colony, or to any Person bearing his Majesty's Commission and employed in his Service as a Physician or Surgeon.

"And provided always that nothing in this Act shall be construed to hinder any Person or Persons from bleeding, drawing Teeth, or giving Assistance to any Person, for which Services such Persons shall not be entitled to make any Charge, or recover any Reward.

"Providing also, that nothing herein contained shall be construed to hinder any skillful Physician or Surgeon from any of the neighboring Colonies being sent for upon any particular Occasion, from practising on such Occasion within this Colony.

"4. And be it further enacted by the Authority aforesaid, That any Person now practising Physic or Surgery, or that shall hereafter be licensed as by this Act is directed, shall deliver his Account or Bill of Particulars to all and every Patient in plain English Words, or as nearly so as the Articles will admit of; all and every of which Accounts shall be liable, whenever the Patient, his Executors or Administrators shall require, to be taxed by any one or more of the Justices of the Supreme Court, or any one or more of the Judges of the Inferior Court of Common Pleas of the County, City or Borough

wherein the party complaining resides, calling to their Assistance such persons therein skilled as they may think proper.

"5. *And be it further enacted by the Authority aforesaid; That every Physician, Surgeon or Mountebank Doctor who shall come into, and travel through this Colony, and erect any Stage or Stages for the sale of Drugs or Medicines of any Kind, shall for every such Offence forfeit and pay the sum of Twenty Pounds, Proclamation money; to be recovered in any Court where the same may be cognizable, with Costs of Suit; one Half to the Person who will prosecute the same to Effect, the other Half to the use of the Poor of any City, Borough, Township or Precinct where the offence shall be committed.*

"6. *And be it further enacted by the Authority aforesaid, That this Act, and every clause and Article herein contained, shall continue and be in Force for the space of Five Years, and from thence until the End of the next Session of the General Assembly, and no longer.*"*

This law was re-enacted in 1784.

I have found but one law passed by the colonial government of Delaware which bore in any way on the regulation of medical affairs. It was enacted in 1726, and was "An act to prevent infected vessels coming into this Government."

Toner's list of colonial laws applying to medical matters in the colony of Maryland is as follows: an act for appointing coroners in each respective county, enacted 1666; an act to prevent the spreading and infection of the small-pox from a vessel belonging to Amos Woodward, merchant, enacted 1731; an act to oblige infected ships and other vessels coming into this province to perform quarantine, enacted 1766; an act to continue the foregoing act, enacted 1769; an act to prevent infection from the ship "Chance," enacted 1774.

In the Carolinas there was much legislation on medical affairs by the colonial authorities. Toner found the fol-

* Wickes, History of Medicine in New Jersey.

lowing laws in the statutes of what are now the States of North and South Carolina, passed prior to the Revolution: An act relating unto the office and duty of a coroner, and settling and ascertaining the fees of same, enacted 1706; an act appointing coroners, enacted 1715; an act for the more effectual preventing the spreading of contagious distempers, enacted 1712; an act for preventing as much as may be the spreading of contagious distempers, enacted 1721; an act for the better preventing the spreading of the infection of small-pox in Charleston, enacted 1738; acts additive to the act for preventing as much as may be the spreading of contagious distempers, enacted 1747, 1752; an act to prevent the spreading of contagious and malignant distempers in this Province, enacted 1752; an act appropriating for a pest-house and other purposes, enacted 1754; an act to prevent malignant and infectious distempers being spread by shipping, imported distempered persons into this Province, and other purposes, enacted 1755; an act for preventing as much as may be the spreading of contagious and malignant distempers in this Province, and repealing the former acts heretofore made for that purpose, enacted 1759; an act for preventing as much as may be the spreading of smallpox in Charlestown, and the further spreading of that distemper in this Province, enacted 1760; an act for preventing as much as may be the spreading of the smallpox, enacted 1764; an act reviving and amending the act of 1759; an act to oblige vessels having contagious distempers on board to perform their quarantine, enacted 1774.

CHAPTER XI.

THE DISCOVERY OF ANÆSTHESIA.

THE discovery of anæsthesia was attended by the bitterest and most acrimonious discussion as to who was the real discoverer. In the following account I have set aside very briefly the claims of Dr. Charles T. Jackson, Dr. Horace Wells, and Dr. Marcy. In my opinion the credit of first using ether as an anæsthetic is due to Crawford W. Long, and the credit of demonstrating its value and use to the medical profession and the world must be ascribed to W. T. G. Morton. Dr. Jackson was consulted by Morton on the subject of procuring some substance to annul pain during surgical operations and he advised him to try sulphuric ether, saying that it would produce unconsciousness when inhaled. Jackson went no further, however. He never tried the experiment of using ether, and the fact he stated had been known to the scientific world for years.

Horace Wells was a dentist of Hartford, Connecticut. In 1844 he heard a chemist lecture on the subject of nitrous oxide, and saw a young man who had inhaled some of it run against furniture and bruise himself without experiencing any pain. The next day he gave himself the gas and allowed a Dr. Riggs to pull one of his teeth. He felt no pain, and on becoming conscious made his famous remark, "A new era in tooth-pulling!" He at once began the manufacture and use of nitrous oxide. Dr. Marcy suggested that ether would make an available substitute, producing the same effect without requiring



DR. CRAWFORD W. LONG, AGED TWENTY-SIX YEARS.

(From a crayon portrait made a few months after his first use of ether as an
anæsthetic.)

as much apparatus as the gas, but Wells thought after a superficial investigation that ether would not suffice.

In the same year, 1844, two years after Dr. Long had operated on patients under the influence of ether, Dr. Marcy claimed he performed an operation on a patient while unconscious from the drug. Even if he had done so, Long antedated him.

Jackson, Wells, and Marcy, however, all pushed their claims for the discovery of anæsthesia. Jackson became insane in 1873, and died in an asylum in 1880. Wells died in 1848 while the controversy was at its height. Marcy's claims were very generally disregarded.

Let us now proceed to the consideration of the men to whom is really due the honor of so great a step towards the annihilation of suffering.

Dr. Crawford W. Long was the first man to use ether as an agent to relieve the pain of surgical operations. As the subsequent narrative shows, he was a modest country practitioner, far from the centres of medical learning and destitute of means to properly exploit his discovery. He does not seem to have actually realized what a vast benefit the discovery of anæsthesia would prove. Probably he did so little surgery that the question of the relief of pain was not presented so forcibly to his mind as to that of others; yet he must have had a large obstetric practice, although it never seems to have occurred to him to use it in those cases at all.

Crawford W. Long was born in Danielsville, Georgia, on November 1, 1815. His father seems to have been a man of considerable prominence in the community. Long received the degree of M.A. from Franklin College at the age of nineteen, and the degree of M.D. from the University of Pennsylvania in 1839. He spent one year after this in a New York hospital. In 1841 he settled down to

practise at Jefferson, Jackson County, Georgia, a small town, far from any railroad. It appears that some itinerant lecturers on chemistry passed through the town at times, and an almost invariable part of their entertainment consisted in making some of the audience drunk with nitrous oxide. Some young men who had heard what pleasure could be derived from this inhalation asked Long to try it on them. He said he had no nitrous oxide, but that ether would produce the same effect. They inhaled it, and found it such fun that ether inhalations became a popular source of amusement all through that section of the country. During January, 1842, many such frolics were held in Long's office, and sometimes when staggering about those who were drunk had injured themselves without experiencing the least pain. Long remarked this, and determined to use it as soon as practicable in a surgical operation. On March 30, 1842, such an opportunity presented itself, and he operated on a man named James Venables, removing a small cystic tumor of the jaw. The following is Venables's description of the occurrence, which he made under oath:

"I James M. Venables, of the county of Cobb and State of Georgia, on oath depose and say, that in the year 1842 I resided at my mother's in Jackson County about two miles from the village of Jefferson, and attended the village academy that year. In the early part of the year the young men of Jefferson and the country adjoining were in the habit of inhaling ether for its exhilarating powers, and I inhaled it frequently for that purpose, and was very fond of its use.

"While attending the academy I was frequently in the office of Dr. C. W. Long, and having two tumors on the back of my neck, I several times spoke to him about the propriety of cutting them out, but postponed the operation from time to time. On one occasion we had some conversation about the probability that the tumors might be cut out while I was under the influence of ether, without my experiencing pain, and he proposed operating on me while under its influence. I agreed to have one tumor cut out, and had the operation

performed that evening after school was dismissed. This was in the early part of the spring of 1842.

"I commenced inhaling the ether before the operation was commenced and continued it until the operation was over. I did not feel the slightest pain from the operation and could not believe the tumor was removed until it was shown to me.

"A month or two after this time Dr. C. W. Long cut out the other tumor situated on the same side of my neck. In this operation I did not feel the least pain until the last cut was made, when I felt a little pain. In this operation I stopped inhaling the ether before the operation was finished.

"I inhaled the ether, in both cases, from a towel, which was the common method of taking it.

(Signed) "JAMES M. VENABLES.

"GEORGIA, COBB Co., July 23rd, 1849.	}	Sworn to before me ALFRED MANES, J. P."
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Long read the following paper before the Georgia State Medical Society in 1842, and it gives such a succinct statement of the whole matter that I prefer giving it in full to making any abstract from it:

"In the month of December, 1841, or Jan., 1842, the subject of the inhalation of nitrous oxide gas was introduced in a company of young men assembled at night in the village of Jefferson, Ga., and the party requested me to prepare them some. I informed them I had not the requisite apparatus for preparing or preserving the gas, but that I had an article (sul. ether) which would produce equally exhilarating effects and was as safe. The company were anxious to witness its effects, the ether was introduced and all present in turn inhaled. They were so much pleased with its effects that they afterward frequently used it and induced others to do the same, and the practice soon became quite fashionable in the country and some of the contiguous counties. On numerous occasions I inhaled ether for its exhilarating properties, and would frequently, at some short time subsequent to its inhalation, discover bruised or painful spots on my person which I had no recollection of causing and which I felt satisfied were received while under the influence of ether. I noticed my friends while etherized received falls and blows which I believed were sufficient to produce pain on a person not in a state of anæsthesia, and on questioning them they uniformly assured me that they did not feel the least pain from these accidents. Observing these facts I was led to believe that anæsthesia was produced by the

inhalation of ether, and that its use would be applicable in surgical operations.

"The first patient to whom I administered ether in a surgical operation was Mr. James M. Venables, who then resided within two miles of Jefferson, and at present lives in Cobb Co., Ga. Mr. Venables consulted me on several occasions in regard to the propriety of removing two small tumors situated on the back part of his neck, but would postpone from time to time having the operation performed from dread of pain. At length I mentioned to him the fact of my receiving bruises while under the influence of the vapor of ether without suffering, and as I knew him to be fond of and accustomed to inhale ether, I suggested to him the probability that the operation might be performed without pain, and proposed operating on him while under its influence. He consented to have one tumor removed, and the operation was performed the same evening. The ether was given to Mr. Venables on a towel, and when fully under its influence I extirpated the tumor. It was encysted and about half an inch in diameter. The patient continued to inhale ether during the time of the operation, and when informed it was over, seemed incredulous until the tumor was shown him.

"He gave no evidence of suffering during the operation, and assured me, after it was over, that he did not experience the least degree of pain during its performance. This operation was performed on the 30th March, 1842. The second I performed on a patient etherized was on the 6th June, 1842, and was on the same person, for the removal of the other small tumor. This operation required more time than the first, from the cyst of the tumor having formed adhesions to the adjoining parts.

"The patient was insensible to pain during the operation until the last attachment of the cyst was separated, when he exhibited signs of slight suffering, but asserted after the operation was over that the sensation of pain was so slight as scarcely to be perceived. In this operation the inhalation of ether ceased before the first incision was made. Since that time I have invariably desired patients, when practicable, to continue the inhalation during the time of the operation. Having permitted such a length of time to elapse without making public my experiments in etherization, in order to show the correctness of my statements I procured this certificate of the patient on whom the first operation was performed, the certificate of two who were present at the time of the operation, and also those of his mother, brothers and sisters and a number of his immediate friends who heard him speak of the operations soon after they were performed. The *Southern Med. and Surg. Journal* (December, 1849) contained but two of the certificates. I have a number

of others which can be seen or read if desired by the Society. My third case was a negro boy who had a disease of a toe which rendered amputation necessary, and the operation was performed July 3rd, 1842, without the boy evincing the slightest sign of pain.

"These were all the surgical operations performed by me during the winter of 1842 upon patients etherized, no other case occurring in which I believed the inhalation of ether applicable. Since '42 I have performed one or more surgical operations annually, on patients in a state of etherization.

"I procured some certificates in regard to these operations, but not with the same particularity as in regard to the first operations, from the fact of my sole object in the publication being to establish my claim to priority of discovery of the power of ether to produce anæsthesia. However, these certificates can be examined.

"The reasons which influenced me in not publishing earlier are as follows:

"I was anxious, before making my publication, to try etherization in a sufficient number of cases to fully satisfy my mind that anæsthesia was produced by the ether, and was not the effect of the imagination or owing to any peculiar insusceptibility to pain in the persons experimented on.

"At the time I was experimenting with ether there were physicians high in authority and of justly distinguished character who were the advocates of mesmerism, and recommended the induction of the *mesmeric state* as adequate to prevent pain in surgical operations. Notwithstanding thus sanctioned I was an unbeliever in the science, and of the opinion that if the mesmeric state could be produced at all it was only on those of strong imaginations and weak minds, and was to be ascribed solely to the workings of the patient's imagination. Entertaining this opinion, I was the more particular in my experiments in etherization. Surgical operations are not of frequent occurrence in a country practice, and especially in the practice of a young physician, yet I was fortunate enough to meet with two cases in which I could satisfactorily test the anæsthetic power of ether. From one of these patients I removed three tumors the same day; the inhalation of ether was used only in the second operation, and it was effectual in preventing pain, while the patient suffered severely from the extirpation of the other tumor. In the other case I amputated two fingers of a negro boy; the boy was etherized during one operation and not during the other; he suffered from one operation and was insensible during the other. After fully satisfying myself of the power of ether to produce anæsthesia, I was desirous of administering it in a severer surgical operation than any I had performed. In my practice, prior to the published account of the use

of ether as an anæsthetic, I had no opportunity of experimenting with it in a capital operation, my cases being confined, with one exception, to the extirpation of small tumors and the amputation of fingers and toes. While cautiously experimenting with ether, as cases occurred, with the view of fully testing its anæsthetic powers and its applicability to severe as well as minor surgical operations, others more favorably situated engaged in similar experiments and consequently the publication of etherization did not 'bide my time.' I know that I delayed the publication too long to receive any honor from the priority of discovery, but having by the persuasion of my friends presented my claim before the profession, I prefer that its correctness be fully investigated before the Med. Society. Should the Society say that the claim, though well founded, is forfeited by not being presented earlier, I will cheerfully respond, so mote it be.

"Not wishing to intrude upon the time of the Society, I have made this short compendium of all the material points stated in my article in the *Journal*, and if the Society wishes any fuller information on the subject I will cheerfully comply with their wishes."

Long did not push himself into the arena as a claimant for the honor of the discovery of anæsthesia until 1854, when, at the solicitation of his friends, he wrote to Senator Dawson, giving him an account of what he had done. Morton was then diligently pushing his claim for compensation before Congress, and it was evident if that body were to yield him its official recognition it would have definitely settled all claims in his favor. Long does not appear to have at any time considered the fact of pecuniary reward. Senator Dawson told Dr. C. T. Jackson of this new claimant for the honor, and Jackson called upon Long to discuss the matter personally with him. Long convinced Jackson of the justness of his claim, and the latter wrote to Senator Dawson and told him that he withdrew his claim, as he believed Long was the discoverer. In the *Boston Medical and Surgical Journal* for April 11, 1861, Dr. Jackson publicly announced, in a letter to the editors, that he considered Dr. Long to be justly entitled to the honor of being the discoverer of ether anæsthesia.



W. T. G. MORTON.

(From the "Semi-Centennial of Anæsthesia," Boston, 1896.)

Long was very modest and retiring, and his claim was allowed to be almost forgotten until Dr. J. Marion Sims stated it once more, in an article in the *Virginia Medical Monthly* for May, 1877.

Long, in 1842, married Miss Caroline Swain, niece of Governor Swain, of North Carolina. His life seems to have been a peaceful, happy, and honored one. He died of apoplexy, June 16, 1878, aged sixty-two.

It is sometimes said he died in poverty, but this is a mistake. He left an estate valued at forty thousand dollars.

The credit of demonstrating to the world the practicability of the use of ether as an anæsthetic, and of realizing the immense boon the substance was to mankind, must be ascribed to William Thomas Green Morton, who was born at Charlton, Worcester County, Massachusetts, on August 19, 1819. His father kept a store and had also a farm of considerable size, on which the son spent most of the days of his youth. He received an ordinary school education, and then began life as a clerk in a store. As a boy Morton is said to have had a strong desire to study medicine, but his father had not the means to gratify his aspirations. The young man had a decided bent for mechanics, and in 1840 he began the study of dentistry in the Baltimore College of Dental Surgery, which had recently started on its career, the first regularly established college of dentistry in the United States. Morton joined its first class, and after receiving his diploma entered into partnership with Dr. Horace Wells to practise dentistry in Boston. Little could either of them foresee of the bitter feud which was subsequently to spring up between them. In 1843, their business having proved unprofitable, they dissolved partnership, and Morton opened dental parlors by himself. In 1844 he married

Miss Elizabeth Whitman, of Farmington, Connecticut, who remained his loyal helpmeet in all his subsequent troubles. He proved very successful in his practice, so much so that in 1844 he entered as a student in the Harvard Medical School, continuing during his work there the practice of his profession. He did not graduate from Harvard, as is sometimes erroneously stated, because his successful demonstration of anæsthesia occurred before the completion of his course, and resulted in overwhelming him with demands on his time to such an extent that he was obliged to give up his medical studies.

Morton's mind was first directed to the study of the production of anæsthesia by his discovery of a new method of inserting artificial teeth. The old way had been to solder the artificial tooth upon a gold plate, the latter being placed directly over the fangs of the old teeth. To fasten the artificial teeth upon the plate it was necessary to use a gold solder of softer consistency than the metal plate, as a heat sufficient to heat the solder would have melted the plate beneath. This method caused a reaction to occur between the metals in the solder and the gold plate, as a result of which the solder would change color, and each tooth would have a black line at its base. Likewise, the retention of discharge between the roots of the old tooth and the plate resulted in a decomposition of the organic material, which rendered the breath intolerably offensive. Dr. Morton found a way to use a solder of the same material as the plate, but his plan involved the removal of the old fangs. This was always a very painful process, and thus his mind was set to work on some plan by which this troublesome feature might be obviated. Morton tried to lessen the pain in many instances by producing alcoholic intoxication or by the administration of large amounts of opium. Dr.

Rice¹ gives the following extract from a case-book of Morton's:

"Mrs. S— to have the whole of teeth in both jaws extracted. Commenced giving opiates about noon. Gave first 150 drops of laudanum. Twenty minutes later, gave 150 additional. Waited ten minutes and gave 100 drops more. Gave 200 drops more with intervals of five minutes. Whole amount given 500 drops in forty-five minutes. At the expiration of this, she was sleepy, but able to walk to the chair. Immediately on extraction of first tooth she vomited. She continued in this way for one hour, during which time the rest of the teeth were extracted. She was conscious, but insensible to a considerable degree. On returning home, she continued to vomit at intervals during the afternoon. Entirely recovered in a week."

In one of his cases he applied ether locally and found it benumbed the part.

There seems to be no doubt that Morton experimented extensively with sulphuric ether in pursuit of his object, and that from an early date that substance seemed to him to possess properties which might be utilized to produce anæsthesia. In the course of his experiments he succeeded in rendering himself unconscious by its inhalation, and on that same day, the 30th of September, 1846, he extracted a tooth whilst the patient was unconscious from ether. It was also on this date that he spoke to Dr. C. T. Jackson on the subject, and that conversation was destined to play a most important part in the subsequent wrangling. It would appear from the evidence before the Senate Committee that Dr. Morton called on Dr. Jackson with a view of obtaining information bearing upon his researches. As a man who deemed himself on the verge of a great discovery and trembling with fear lest some one should anticipate him, he took the greatest pains to conceal the real progress he had made and the nature of the substance he was experimenting

¹ Trials of a Public Benefactor.

with. The power of ether to produce unconsciousness when inhaled led Jackson to mention it to Morton. The latter pretended to have never heard of this property possessed by ether, and dissembled so skilfully that Jackson afterwards maintained that Morton had no knowledge of ether at this time, and that he was the first to suggest its use to him. There were four persons present at this interview, and in their relation of what occurred they all differed. All agreed in one point,—namely, that Dr. Morton assumed total ignorance of sulphuric ether, its nature and qualities, and left the impression on the minds of those present that he knew nothing of it.

Morton, wishing to get endorsements and support from the medical profession, decided to try and induce the surgeons of the Massachusetts General Hospital to allow him to demonstrate his discovery in their presence. He therefore called on Dr. J. C. Warren and requested an opportunity to use what he called his "preparation" on a case at the Hospital. Dr. Warren promised to aid him, and soon after Morton received the following letter:

"DEAR SIR: I write at the request of Dr. J. C. Warren, to invite you to be present on Friday morning at 10 o'clock, at the hospital, to administer to a patient who is then to be operated upon the preparation which you have invented to diminish the sensibility to pain.

"Yours respectfully

"C. F. HEYWOOD.

"House Surgeon to the General Hospital, October 14th, 1846.

"DR. MORTON, Tremont Row."

The day thus fixed was October 16.

At the suggestion of Dr. A. A. Gould, the distinguished naturalist, of Boston, Dr. Morton had a new form of apparatus constructed for use in the administration of the anæsthetic. This caused some delay in his arrival at the Hospital, and it was at first supposed by those gathered in the operating-room that he was afraid



Morton demonstrating the administration of ether, at the Massachusetts General Hospital, October 16, 1846.
(From the "Semi-Centennial of Anesthesia," Boston, 1896.)

to appear and had backed out. The best account of the scene by an eye-witness is that written by Dr. Washington Ayer, of San Francisco, published in the "Account of the Semi-Centennial of Anæsthesia" at Harvard. He writes:

"The day arrived; the time appointed was noted on the dial, when the patient was led into the operating-room, and Dr. Warren and a board of the most eminent surgeons in the State were gathered around the sufferer. 'All is ready—the stillness oppressive.' It had been announced 'that a test of some preparation was to be made for which the *astonishing* claim had been made that it would render the person operated upon free from pain.' These are the words of Dr. Warren that broke the stillness.

"Those present were incredulous, and, as Dr. Morton had not arrived at the time appointed and fifteen minutes had passed, Dr. Warren said, with significant meaning, 'I presume he is otherwise engaged.' This was followed with a 'derisive laugh,' and Dr. Warren grasped his knife and was about to proceed with the operation. At that moment Dr. Morton entered a side door, when Dr. Warren turned to him and in a strong voice said, 'Well, sir, your patient is ready.' In a few minutes he was ready for the surgeon's knife, when Dr. Morton said, 'Your patient is ready, sir.'

"Here the most sublime scene ever witnessed in the operating-room was presented, when the patient placed himself voluntarily upon the table, which was to become the altar of future fame. Not that he did so for the purpose of advancing the science of medicine, nor for the good of his fellow-men, for the act itself was purely a personal and selfish one. He was about to assist in solving a new and important problem of therapeutics, whose benefits were to be given to the whole civilized world, yet wholly unconscious of the sublimity of the occasion or the part he was taking.

"That was a supreme moment for a most wonderful discovery, and had the patient died under the operation, science would have waited long to discover the hypnotic effects of some other remedy of equal potency and safety, and it may be properly questioned whether chloroform would have come into use as it has at the present time.

"The heroic bravery of the man who voluntarily placed himself upon the table, a subject for the surgeon's knife, should be recorded and his name enrolled upon parchment, which should be hung upon the walls of the surgical amphitheatre in which the operation was performed. His name was Gilbert Abbott.

"The operation was for a congenital tumor on the left side of the neck, extending along the jaw to the maxillary gland and into the mouth, embracing the margin of the tongue. The operation was successful; and when the patient recovered he declared he had suffered no pain. Dr. Warren turned to those present and said, 'Gentlemen, this is no humbug.'"

The following is the Hospital record of the case:

"Gilbert Abbott, age twenty, painter, single; tumor on face. This man had from birth a tumor under the jaw, on the left side. It occupies all space anterior to neck, bounded on the inside by median line, on the outside is even with the edge of jaw; below, on a level with the Pomum Adami, and in front tapers gradually as far as anterior edge of jaw; integuments not adherent to it; skin smooth and of natural color; it is uniformly soft, except in centre, where a small hard lump can be felt, corresponding in size and situation with submaxillary gland; can be made to disappear by compression, but seems rather to be displaced than emptied. The edge of the lower jaw-bone can be felt, through the tumor, to be irregular. On examination of the inside of the mouth, find a soft smooth tumor, a hemisphere about five lines in diameter, of a livid color, on the left lobe of tongue, about an inch behind tip. That portion of the organ in front and underneath the tumor is of a dark purple color. This tumor is readily emptied by slight pressure, but it fills again in one or two seconds, but not sooner when pressure is made simultaneously upon the external tumor. For distance of five lines from angle of mouth on right side the lower lip is of a livid hue. This seems to be a continuation of a stripe, similar in appearance, which extends from angle of jaw on right side about on level of lower teeth; it is about four lines wide and slightly raised; its color seems to depend on small spots like granulations, of a livid color, set on mucous membrane of ordinary appearance.

"This case is remarkable in the annals of surgery. It was the first surgical operation performed under the influence of ether. Dr. Warren had been applied to by Mr. Morton, a dentist, with the request that he would try the inhalation of a fluid which, he said, he had found to be effectual in preventing pain during operations upon the teeth. Dr. Warren having satisfied himself that the breathing of the fluid would be harmless, agreed to employ it when an opportunity presented. None occurring within a day or two in private practice he determined to use it in this patient. Before the operation began, some time was lost in waiting for Mr. Morton, and ultimately it was thought he would not appear. At length he ar-

rived, and explained his detention by informing Dr. Warren that he had been occupied in preparing his apparatus, which consisted of a tube connected with a glass globe. This apparatus he then proceeded to apply, and after four or five minutes the patient appeared to be asleep, and the operation was performed as herein described. To the surprise of Dr. Warren and the other gentlemen present, the patient did not shrink, nor cry out, but during the insulation of the veins he began to move his limbs and utter extraordinary expressions, and these movements seemed to indicate the existence of pain; but after he had recovered his faculties he said that he had experienced none, but only a sensation like that of scraping the part with a blunt instrument, and he ever afterward continued to say that he had not felt any pain.

Note.—The results of this operation led to the repetition of the use of ether in other cases, and in a few days its success was established, and its use resorted to in every considerable operation in the city of Boston and its vicinity."

A few days later Dr. Morton was told that the "surgeons of the hospital thought it their duty to decline the use of the preparation until informed what it was." After some further correspondence and interviews Morton told them what the substance was, thus really showing the spirit of a public benefactor. There has been much dispute as to Morton's conduct in this matter, some holding that it was monstrous for him to try and secrete the nature of his discovery and secure a patent for his rights, others justifying his course in the matter. I think that due attention should be given to the fact that Morton had worked hard and by virtue of his labors discovered something of the greatest commercial value. Just imagine what it would mean to a man to hold such a patent. Dentists have always been in the habit of patenting any devices or appliances which they have discovered, and no one has thought any the worse of them for doing it. Morton was not a doctor, and consequently under no professional obligations. It would, of course, have been a beautiful and noble thing for him to have freely given

this great boon to the world, but it was almost too much to expect. And then it is but right to place some belief in what Morton claimed was the reason he wished the nature of the substance he used to remain a secret,—namely, that he might perfect the method of its use, and not come before the world with his discovery until he had become positively assured of its efficacy. Certainly the surgeons of the Massachusetts General Hospital, than whom no more competent set of judges could be found, believed in Morton's sincerity from the outset and maintained their confidence in him to the last.

A patent was issued to Morton on November 12, 1846, and on December 21, 1846, he secured an English patent through an English subject named Dore, who at once assigned his rights to Morton.

Morton called the anæsthetic "Letheon," but, of course, this term was soon given up for the real name of the substance,—ether. The term anæsthetic was first suggested by Dr. Oliver Wendell Holmes in the following letter to Dr. Morton:

" BOSTON, Nov. 21st, 1846.

" MY DEAR SIR:—Everybody wants to have a hand in a great discovery. All I will do is to give you a hint or two, as to names, or the name, to be applied to the state produced and the agent. The state should I think be called 'Anæsthesia.' This signifies insensibility, more particularly (as used by Linnæus and Cullen) to objects of touch. (See Good—*Nosology*, p. 259.) The adjective will be 'Anæsthetic.' Thus we might say, the state of anæsthesia, or the anæsthetic state. The means employed would be properly called the anti-æsthetic agent. Perhaps it might be allowable to say anæsthetic agent, but this admits of question.

" The words, antineuritic, aneuric, neuro-leptic, neuro-lepsia, neuro-etasis, etc., seem too anatomical; whereas the change is a physiological one. I throw them out for consideration. I would have a name pretty soon, and consult some accomplished scholar, such as President Everett or Dr. Bigelow, senior, before fixing upon the terms, which will be repeated by the tongues of every civilized

race of mankind. You could mention these words which I suggest for their consideration; but there may be others more appropriate and agreeable.

"Yours respectfully,

"O. W. HOLMES.

"DR. MORTON."

Although the medical profession in Boston were almost unanimous in extolling the benefits of ether and in their support of Dr. Morton, his discovery met with the usual fate, and he had to contend against the most determined opposition. There were the claims of Marcy, Jackson, and Wells to be met and combated, there was a very general fear among physicians that the use of ether was attended with great danger, and among religious people many cranks held that as the Almighty had destined the human race to suffer pain, it was wrong for any one to attempt to change his decree. Its use in obstetrics was especially condemned, and curiously enough, no one seems to have thought of the ingenious argument subsequently used by Sir James Y. Simpson in defence of the use of chloroform in childbirth,—namely, that the Lord threw Adam into a deep sleep at the time of Eve's birth.

But Morton had the gameness of a good fighter, and in spite of all discouragements he maintained an uphill contest and persevered in trying to obtain what he considered his just rights. The United States government infringed its own laws and used ether in the army and navy without any regard to the recently granted patent rights of Morton. As soon as this fact became known no one hesitated to do the same thing, and poor Morton found that his imagined fortune was nothing but a chimera. He had sold the right to use ether to a number of persons, and had employed agents to disseminate his discovery and to grant licenses for its use in various parts of the United States. When his patent rights were

nullified he became involved in endless lawsuits with these people. The latter part of his life was devoted to efforts at obtaining some pecuniary recompense from the government for all he had undergone. In this project he failed. Many scientific bodies granted him small sums of money, and the medical profession united in many places in subscribing to testimonials for his benefit. Dr. Morton died in 1868 a disappointed man. He was made of sterner stuff than Jackson, who went insane, or Wells, who took his own life, but it is said his death was accelerated by the disappointments and sorrows he had borne.

APPENDICES.

APPENDIX A.

THE EXAMINATION OF DR. CHURCH.

I REPRINT Dr. Church's manuscript from the Massachusetts Historical Society's Collections, first series, vol. i. p. 84:

"The following account of the examination of Dr. Benjamin Church was written while he was in prison, at Cambridge, having acknowledged that he was the author of a letter containing the state of the army, stores, etc., which was intercepted and thought to be part of a treacherous correspondence, as it was written to a gentleman in Boston. The letter was in cyphers, it was afterwards published; frequent reference is made to it in this relation.

"On Friday October 27, the high Sheriff, How, a messenger of the House of Representatives, at ten o'clock, A.M. came to my prison, accompanied by Adjutant General Gates, and the several officers of the guard, with a summons from the Honorable House, commanding my immediate attendance at the bar of the House. I requested to be indulged with an opportunity to change my linen, which was indulged me while the guard was parading, and the officer of my escort, waited upon the General, for his directions. By the time I had put myself in decent apparel, I received orders to proceed: I had procured in this interim, a chaise from a friend, into which the messenger entered with me; in which manner we proceeded, (To my utter astonishment, the House, forgetful of their dignity and privileges, in a manner unprecedented, suffered me to be held in custody of a military guard during the whole time of my trial before the Honorable House) in the centre of a guard of twenty men, with drum and fife, from my prison in Cambridge to Watertown, being three miles. When arrived at the Meeting House in Watertown, where the Assembly then sat, the messenger of the House announced my arrival; upon which, we received orders to tarry at the door till called for; after waiting a few minutes, the doorkeeper opening the door, directed the messenger to bring in the prisoner. I was then ushered into the House, and advancing up to the bar, which was placed about midway of the broad alley, I made my obeisance to

the Honorable Speaker of the House, James Warren, Esq. and to the Members of the Honorable House of Representatives there assembled. The galleries being opened upon this occasion, were thronged with a numerous collection of people of all ranks, to attend so novel and so important a trial. The Honorable Speaker then began, by informing me, that the Honorable House of Representatives, having been informed, that I, a member of that House, was put under arrest by his Excellency General Washington; and their jealousy for the privileges of the House having been excited thereby they had appointed a committee of the Honorable House, to wait upon and confer with his Excellency upon the subject; to which they had received the following answer. Here his Honor recited a letter from his Excellency General Washington, attested by his Secretary, the Honorable Joseph Reed, Esq. specifying, that at a meeting of a General Court Martial, held at Cambridge, on October third, Present, his Excellency General George Washington, Esq., President, all the Major-Generals and Brigadier-Generals of the Army, and Adjutant-General Gates, Benjamin Church, Esq. Director-General of the Hospital was summoned before them; when a Court of inquiry being held, it was their unanimous opinion, that said Benjamin Church was convicted of holding a criminal correspondence with the enemy, each member being questioned *seriatim* upon the matter. After the Speaker had read the doings of the Court Martial, the criminal letter as decyphered by Mr. West was produced and read to the House; upon which the Honorable Speaker observed, 'that the Honorable House, from a regard to their own honor and reputation, and to express their abhorrence of such conduct in one of their members, had summoned me to the bar of that House, to make answers to the charges exhibited against me, and to proceed in such manner as to vindicate the reputation of the House.' And then holding out the letter, demanded 'if that was a true copy of the letter I wrote in cyphers;' to which I replied: 'May it please your Honor and the Honorable House, although I am a member of this Honorable House, or have been, and have sustained some little part in the struggles of this very respectable body for several months past, yet in the matter in which I hold some capital consideration, I profess myself to be totally unacquainted respecting the general design, mode of process, and the issue. If I might entreat the indulgence of the Honorable House I would inform them, about a month since, I was taken by an armed force, and have been confined a close prisoner for twenty-eight days; secluded by my stern gaolers from the cheering eye, and consoling tongue of friend and acquaintance, unless by a special license, which has been sparingly granted! and never indulged with the aid and advice of council

learned in the law; six days retained in the most rigorous confinement. I was then led before a (I was not even there favored with the assistance of the Advocate General. They cannot pretend it was not a trial, as they made up their judgement, and determined I was convicted of a criminal correspondence, &c) general court martial attended by my guards; after a scrutiny novel and undecisive, which I then apprehended to be a trial, I was remanded back to my prison; but at my request, and the indulgence of the General, attended only by the officers of the guard. There I have been held in the most cruel imprisonment at the point of the bayonet ever since. This morning, may it please your Honors, at the hour of 10 o'clock, without any previous intimation of such design, without any expectation of such an event, I am summoned, *ex improviso*, and immediately to the bar of this Honorable House. Bowed to the dust by infirmity produced by distress, harassed and sickening with painful suspense, aggravated vexations, rigorous imprisonment, and a load of sorrows no longer supportable, am I called upon to make my defence. Though in a situation to wound the bosom of compassion, and from the eye of humanity to steal a tear, relying on conscious integrity, that trial I wish not to evade: only let me be determined, Sir, whether the jurisdiction of this House extends to the whole enormity of the transaction of which I stand accused; whether, may it please your Honor, this trial shall be final and decisive.' To which, his Honor the Speaker made answer, 'that the Honorable House had determined to examine this matter no farther than as it related to a member of that House.' To which I rejoined: 'Sorry am I, Sir, that my plea for justice cannot be heard: I have been led from Caiaphas to Herod, and from Herod to Pontius Pilate; to what tribunal shall I make my final appeal? The House will pardon me; but while they appear so tremblingly alive to preserve their reputation unsullied, they should not forget the sinister influence such precipitation will have at the future trial of perhaps an innocent man; my cause will be pre-judged, and my guilt ascertained by the sanction of this important body before due inquisition is made. I did hear, Sir, that this House had determined on my (As the general Court Martial had convicted me without a trial, perhaps the Honorable House will think themselves warranted in *their sentence of excommunication*) expulsion; I immediately transmitted to your Honor a formal resignation of my seat as a member of this House, in some measure to prevent the ill consequences which their censure might produce hereafter.

" 'This Honorable House may possibly remember when Mr. Wilkes was arraigned in the language of Lord Chatham "for blaspheming his God and libelling his King," the House of Commons,

of which he was then a member, did not evidence a premature distress lest their immaculate honors should be tainted; their generous humanity induced them to take no cognizance of the act, till by due process of law he was condemned to exile. After which they expelled him from the House.' The Honorable Major Hawley then moved, that the Honorable Speaker would put the question to me, whether the letter then read was a true copy of the letter I wrote in cyphers. I replied it was not an exact copy. Major Hawley then urged, that perhaps there was some trifling literal variations which made no material difference, but requested that I might be asked whether the letter then read did not contain the true meaning and import of my letter in general. The question was put by the Speaker; to which I answered as follows: 'I perceive the Honorable House, influenced by a partial purpose are determined upon an immediate trial. The Honorable gentleman from Northampton perfectly mistakes me if he supposes, I mean through chicane or evasion to interrupt your inquisition; confirmed in assured innocence, I stand prepared for your keenest searchings. I now first learn, may it please your Honors, of my being convicted by a general Court Martial of a' (It appears to me a strange perversion of language to assert that I was convicted of a criminal correspondence with the enemy, when there was no single circumstance to lead to such a conviction beyond the letter itself which carried in it such evident marks of fallacy as to destroy its own testimony; add to this—it savors not a little of Hibernianism to construe the bare writing a letter (which was never conveyed to the person for whom it was wrote) a conviction of an actual criminal correspondence. The most severe construction that common understanding could affix to this writing, were it indisputably calculated to betray the interest of the community, would be an 'attempt to correspond with the enemy,' but the person for whom the letter was designed, was not in office, was not a soldier; he was my friend and brother. I have a great veneration for several of the venerable personages, who composed this Court—but abstracted from the consideration of *self*, I lament that those worthy characters should have been betrayed into so injurious, so unjustifiable a construction of an innocent piece of artifice to serve the common cause. If I was then convicted, I suppose my continued imprisonment is the penalty awarded for my transgression; if so, the month is up, and I ought to be discharged, but of this more hereafter) 'criminal correspondence with the enemy; what leads to such a conviction is perfectly unknown to me; and I presume it is something singular that I should first be acquainted with the judgement of that Court in my attendance upon this. It has been frequently objected to us by our adversaries, that

we were struggling to establish a tyranny much more intolerable than that we meant to oppose. Shall we justify the prediction of our enemies? Will it be for the honor or interest of the community that one of your friends and partizans is reduced to deprecate that power, which by his constant exertions he has been in some measure instrumental in supporting? You profess, you are contending for the rights and liberties of British subjects. Why then deny appeal to common law? Am I impertinent in claiming the rights of Magna Charter, and bill of rights; have I no title to a trial by jurors, or the benefit of the Habeas Corpus Act? but if by a forced construction I am deemed amenable to martial law, for matters transacted before my appointment to the hospital, and before the promulgation of those laws; why are the rules and articles framed by the Continental Congress, for the government of the Army, violated in every letter, to accumulate distresses upon me?

“I have suffered already the utmost penalty annexed to the breach of that law, for which I now stand committed. Am I to be the victim of the unsatiable rage of my enemies? Am I perpetually to be subjected to the successive pains and penalties of every capricious power? It is a maxim in that government which I claim as my inheritance, Sir and for which you have expressed the highest veneration, “*Misera equidem est servitus, ubi jus est vagum et incertum,*” miserable indeed is that state of slavery where the right of the subject is vague and uncertain. But I will not engross the time of this Honorable Court. I did say, Sir, the letter, as now read, is not a literal construction of that I wrote in cyphers, as far as my memory serves, for the letter was written in great haste. I never have been favored with a copy since, to consider of it; and have never seen it till to-day, except the very cursory reading I gave it when before the General Court Martial, at which time the perturbation of mind incidental to such a situation naturally prevented such a close attention as to enable me to recollect the contents. I believe in general the sense is preserved; in some instances it is perverted. It has been proposed that the letter be read in paragraphs, and that I be questioned in order. If it will be agreeable to the Honorable House, I will read the letter in paragraphs: I will candidly and faithfully execute my intention in the course of my reading, and to convince the Honorable House that I mean not to cavil at trifling inaccuracies, I will correct the erroneous passages as I proceed, and restore the true reading on a different sheet.’ This motion was acceded to by the Honorable House, and the copy of the letter being handed me by John Pitts, Esq. I began: ‘Previous to any remarks upon the substance of this reprobated letter in my hand, by your Honor’s leave, and the indulgence of the Honorable House, I will

repeat the circumstances which led to the letter: sometime after my return passing in my chaise toward Mystick, I found household furniture toward Cambridge. I met a woman with two children; she asked my name, asking me if I did not know her; she was familiar to me; I answered yes, and inquired she informed me the day before, and told me she came from Boston, from my brother; she took it from her pocket, and opening it, handed the letter delivered it to me; it was directed to me; upon it I found it written in cyphers and signed J. F. I rode a few rods; curiosity induced me to repair to my lodgings to decypher the letter and see the contents; this is the letter,' to the speaker the Honorable House as follows,

“‘DEAR DOCTOR

“‘I have often told you what the dreams of your sons would come to; do you forget my repeated caution make yourself too obnoxious to government; what says the singer and Johnny Dupe to fighting British troops now? at Philadelphia, I suppose, plotting more mischief, when your High Mightiness has been Ambassador extraordinary in care of your nob, Mr. Doctor; remember your old friend orator, he will preach no more sedition. Ally joins me in urging you to come to Boston. You may depend upon it government determined to crush this rebellion, a large reinforcement of troops is hourly expected, when they are determined to penetrate into the country; for God's sake, Doctor, come to town directly; I'll engage to procure your pardon; your Sister is unhappy under the apprehension of your being taken and hanged for a rebel, which God grant may not be the case; you may rely upon it the Yankees will never be a match for the troops of Great Britain. The Yorkers have behaved like damned fools in robbing the King's stores, as government had intended to have granted them some exclusive privileges in trade, had they continued loyal. It will now be a rendezvous for British troops. We know well enough that you are divided, your people are discouraged, that you want discipline, artillery, ammunition; and government has taken effectual care that you shall not be supplied by other powers. I have wondered that we have not heard from you; difference of politicks has not cancelled my friendship for you. Let me entreat you not to take up arms against your rightful King, as your friend Warren did, for which he has paid

dearly. I cannot send your sulkey and other matters you sent for; you may thank your own people for that, who first set the example by preventing anything from being brought to them. I think you might have sent us a bit of fresh pork now and then. You see Hancock and Adams are attainted already. If you cannot pass the lines, you may come in by Capt. Wallace, via Rhode Island, and if you do not come immediately write me in this character, and direct your letter to Major Cane on his Majesty's service, and deliver it to Capt. Wallace, and it will come safe. We have often heard your people intend to attack the town; by God, I believe they had such a dose on Bunker's Hill as to cool their courage. Your Sister has been for running away. Kitty has been very sick, we wished you to see her; she is now picking up. I remain your sincere friend and brother,

"J. F.

"P.S. Don't fail to write me soon.'

"This letter being read I proceeded, 'your Honor well knows what was our situation after the action of Bunker's Hill; insomuch that it was generally believed, had the British troops been in a condition to pursue their success, they might have reached Cambridge with very little opposition. Not many days after this we had a report circulated very generally, and as generally credited, of the arrival of a reinforcement of 5000 British troops in Boston. This Honorable House have not forgot the general anxiety excited thereby, together with the consideration of our not being in a capacity to make any tolerable resistance from the reduced state of our magazines; was there a man who regarded his country who would not have sacrificed his life to effect a tolerable accommodation? my fears I must confess were greatly excited. At this interval, a week perhaps, or ten days after I had received this letter, I was confined to my lodgings by a stormy day, contemplating our disagreeable situation. I pulled the letter out of my pocket and reading it; the idea of writing an answer to my brother started into my mind; imagining I could improve the opportunity to effect a happy purpose I immediately set about it. One circumstance which was an inducement to writing at that time was, that a young woman in the same house was to set off for Newport the next morning. I will now proceed to consider the letter by paragraphs, after premising that I have endeavored to adopt the air and language of a tory throughout, for the purpose of securing confidence, and obtaining the intelligence I wanted. "Three attempts have I made to write you, the last the man was discovered, but fortunately my letter &c." May it please your Honor; had I written or at-

tempted to write into Boston; is it not very extraordinary that during my long confinement when the very antipodes have been alarmed at the transaction, and every tongue has been clamorous against me, is it not strange, Sir, that no proof has been exhibited against me of such correspondence, but in this very letter, which is crowded with fallacy, and obviously designed to deceive? The idea of the man being discovered but escaped, "the letter being, &c." was suggested by the affair of Doctor —, who was taken, as reported, going into Boston, was searched but no letter found. I heard of the matter upon my return from Philadelphia, and that the letter was so concealed, which was idly reported to be the reason of its not being detected. The other two attempts are mentioned in a subsequent paragraph, "twice have I been to Salem, &c." this idea was started by the following incident; about a week before I set out on my journey, Major Bigelow informed me he had received intelligence that provisions and other matters were conveyed into Boston by the Custom House boat from Salem, which ought to be immediately prevented. I instantly laid the matter before the Committee of Safety, and they determined to take measures immediately to prevent her passing into Boston. I solemnly declare, Sir, I never wrote one letter into Boston since I left it. I solemnly declare I have never been to the town of Salem these seven years past—"I went by the way of Providence to visit Mother." This passage I think, Sir, confirms my declaration that the letter was designed for my brother, and not for Major Cane. I should hardly have acquainted the Major of my going to visit my Mother, and surely I should not have neglected to affix the relative *my* to the substantive, were not the letter addressed to a relative character. The next paragraph is, "*the Committee for warlike stores ending at Bunker's Hill!*" Here, may it please your Honor, is a capital omission, which leads to a suspicion of my having written before. In the original copy, I remember perfectly well, after the words "having taken a previous resolution to make the offer to General Ward" were added "for the purpose of fortifying Bunker's Hill." This part of the sentence was either inadvertently left out by myself in copying the letter into cyphers, or omitted by the person who decyphered the letter; this accounts for the references below "as I have hinted" and reconciles this passage with the first paragraph that "I had made three attempts to write him without success. The true state of the fact, is as follows: The taking and fortifying Dorchester hill was the first object in contemplation when I left the camp; I was sensible we had not heavy artillery. When at Providence, being informed that they had a considerable number there, I applied to the Honorable Mr. Ward, who resided then at Provi-

dence, and was a member of the Committee of War, for such of them as they could spare. Mr. Ward called the Committee together, when they generously granted them, and they were sent down. The application was made spontaneously by me and I wrote a letter of apology to General Ward for officiousness in this matter. The reason of my covering this transaction in my letter was a constant communication between Newport and Boston; there was no doubt but they would have accounts of this transaction; did I not account for it in a way to conceal my being active in the matter, I should have been defeated in my intentions in writing.' Here I was interrupted, and the House voted to adjourn to 3 o'clock; I was ordered to make such corrections in the interim, as to make it correspond with the original draught. I was then by the order of the Honorable House conducted by my guard under custody of the Messenger of the House, where at the *public expense* I was regaled with half a mug of flip and the wing of a chicken, and was then reconvened to the House in the manner I came from thence. When arrived at the door of the House, the messenger communicated my arrival; he was directed to detain the prisoner at the door till called for. I was continued in the cold on a bleak eminence for the space of half an hour, which after a month's close confinement was not very eligible, and during the whole time surrounded by my guards with additional mobility. *Digito Monstrari, et dicier hic est*, during which time a solemn vote was passed to invite the Honorable his Majesty's Council for this Colony and sundry military gentlemen to be present at the trial, and when their Honors had taken their seats, orders were given to admit the prisoner; I was then introduced to the bar of the House; the Speaker addressing himself to me, informed me the House were ready to hear me, and ordered me to proceed; I began as follows: 'May it please your Honor; to the patient attention, the apparent candor, and generous humanity of the Honorable House, I feel myself deeply indebted. I shall now proceed by their continued indulgence to some further observations on the letter, not doubting from the approved justice and benignity of this Honorable Assembly, a full acquittance from the groundless charges levelled against me. The next paragraph is "which together with the cowardice of the clumsy Col. Gerrish, &c." to defeat. There is a mistake in the word *lucky* in this sentence; the original was unlucky, the negative being marked by an additional stroke on the l; here I cannot but observe, Sir, that notwithstanding the apparent labor and design throughout the whole to maintain the character of a tory, yet in this paragraph I have inadvertently betrayed myself; having mentioned Col. Gerrish and Col. Scamnon [Scamnell] in terms of reproach and indignation

for not engaging the King's troops, after giving an account in the next paragraph of the number killed and wounded in the battle of Bunker's Hill, which greatly falls short of the truth, and an oblique sarcasm upon them for their extravagant calculation in this matter, I proceed in several succeeding paragraphs in the most exaggerated terms possible, to alarm him with a very formidable account of the spirit, supplies, resources, industry, union, and resolution of the Colonies, all confirmed by ocular demonstration, beginning with "the people of Connecticut" and continued as far as "are readily exchanged for cash." As far as my contracted reading and observation extends, may it please your Honor, it has been the policy of those we have heretofore deemed our enemies to speak in contemptuous terms of the courage, strength, union, and resources of these Colonies; they have I apprehend, Sir, constantly endeavored to discourage us, and encourage the enemy by remonstrating in the warmest manner the impossibility of our making any effectual resistance against them. I am condemned for a representation perfectly the reverse of this. I would ask, Sir, who are your friends? Is it criminal and injurious to you to say we are able and determined to withstand the power of Britain; is it criminal, Sir, to alarm them with a parade of our strength and preparation, is it bad policy or a proof of enmity, when under the most alarming apprehensions of instant ruin from their attack, by an innocent stratagem to divert them from such a ruinous enterprise? The next matter, most strenuously urged and insisted upon, is an immediate accommodation, or the Colonies are disjoined from Britain forever: see from; "add to this—" "for God's sake prevent it by a speedy accommodation." Here may it please your Honor, the plot is unravelled; the scope and design of the letter is here fully explained; to effect the reconciliation so vehemently urged, so repeatedly recommended. For what cause have I worn the garb of a friend to government throughout this letter, for what cause have I repeated fallacy upon fallacy; for what cause have I exaggerated your force, but to effect a union, to disarm a parricide, to restore peace to my distracted country: if this is the work of an enemy where are we to look for a friend? There are two or three passages which from being misunderstood have been greatly exaggerated which I shall explain hereafter. The next paragraph beginning at "writing this" to "discovery," are totally futile and apochryphal. The next passage, "I am not in place here, &c." is in answer to his request in his letter, not to take up arms against the King, and to quiet the fears of a sister, as well as to carry on the deception; but even here through haste and inattention I have committed a blunder which should have been avoided. I have mentioned a readiness to take

up with an appointment in my own way, not considering that in the capacity of a physician or surgeon I should be deemed aiding and assisting and equally obnoxious with those who were actually in arms. The concluding paragraph contains particularly directions for writing me; from hence I think Sir, the following conclusions are fairly deducible: first, my endeavors to appear so zealous a friend to government, and so seemingly open and communicative were to engage him to a full and free communication on his part for purposes very obvious; again, Sir, I think it is indisputably proved from this paragraph, that a previous correspondence never subsisted between us; if this had been the case, Sir, can it be supposed I should be so extremely minute and circumstantial in pointing out a mode and channel of conveyance, or if we had heretofore communicated, should I not have intimated my reasons for altering the plan? I have urged labor and pains writing him, I have urged secrecy, I have urged danger, merely to impress his mind with my being zealously attached to his party, to secure full faith and credit to influence him to an unlimited confidence in his return to me. If in this I have transgressed the motive will surely absolve me. Here, may it please your Honor, concludes the letter innocently intended, however indiscreetly executed; a letter which has alarmed the world, wounded me in the esteem of my friends, and glutted the malice of my enemies. I shall now by your Honor's leave make a few observations on some particular passages and then conclude. One or two paragraphs have been urged as proofs of my having carried on a correspondence with this person for some time past; the words, "as I hinted before to you," is one; this I have explained to you already; another is "you know I never deceived you." The man I wrote to, had implicitly swallowed the doctrine of Mr. Hutchinson: that all the opposition arose from a small but very busy faction: that the Americans would never dare to fight the British troops. These sentiments I had constantly and warmly opposed, assuring him, the continent was engaged in the opposition to the present measures, and if blood should be drawn, he would be convinced of the spirit and resolution of Americans. These facts he assented to the last time I saw him, and acknowledged I had not deceived him; which fully explains this passage. That the letter is totally fallacious as far as evidence is admissible, you cannot doubt, Sir. The pains taken to send letters is in every instance uncontestably false; the matter of sending cannon from Providence, as there related, is equally so, and probably calculated to effect political purposes. Why then, may it please your Honor, shall unbounded credit be given to that letter, which bears such glaring marks of fallacy and design, and couched in terms totally incon-

sonant with the conduct of my whole life; against the conviction arising from that conduct, against my solemn concurring circumstances, to prove that it was meant as a piece of political deceit to save my country: If I had intended to commence a spy, Sir, why did I not communicate other matters than those which were of public notoriety? The affair of robbing the King's stores in New York, is adopting his very language; the expedition against Canada, is barely mentioned, and introduced merely because it was published at the same time, and in the same papers with the matter mentioned by himself; it was impossible but he should have known it, and therefore, had I suppressed it, it might have excited a jealousy no way favorable to my purpose. Were there not sundry important matters then agitating, which I was well acquainted with; if I had been an enemy why did I not mention those matters, which to communicate would be to defeat. Were I that enemy, may it please your Honor, which the tongue of slander proclaims me to be; should I have made such an ostentatious parade of our strength and resources; should I not rather have dwelt with a malicious pleasure on our weakness; should I not rather have advised the enemy when to attack us with assurance of success; should I not rather have encouraged them to prosecute the war with vigor, than to desist from hostilities and propose terms of accommodation; certain I am, Sir, the letter bears the impression of an anxious friend to his country. I have there expressed a firm loyalty for the King, so has this House in every public proceeding; I have told him, and confirmed it with abundant facts, that the Americans were determined vigorously to defend their rights; so have you, gentlemen, asserted in the strongest terms. I have recommended with all the warmth of an honest zeal to put an end to the work of death; is not this the universal wish, Sir; you will say perhaps, I conversed with him in the language of an enemy; he is a friend to government, so called, Sir; I wrote *ad hominem*; I wrote *ad captum*. Where, may it please your Honor, is the crime, unless it be a crime to pursue indirect measures in a time of public danger to prevent a public calamity. The manner in which the letter was written, the mode of address, and conveyance have likewise been much condemned; but if it be considered, Sir, that this was the mode prescribed by the person to whom I wrote, that affected secrecy, and an ostensible coincidence in sentiment were indispensable, in order to effect my design; those of candid and liberal sentiments will readily pardon me; I have been used, Sir, to direct the reins in my little theatre of politicks. I had no suspicion of evil, because I meant none. The letter was intrusted to a man I did not know, whom I never saw. Two months it lay

where I could easily have obtained it. I never was one moment anxious about it; surely, may it please your Honor, it will afford a presumption of my innocent intention at least, when the letter was lodged in the hands of a stranger, who resided in the very centre of my friends and relations, that I never was solicitous enough to write to one of those to secure it. I will entreat the patience of the Honorable House for a moment longer; when I was in Boston, exposed to certain hazard, solicited, persecuted, and personally obnoxious, did I ever recede one moment from the cause of my country? Though frequently threatened and abused as I passed the streets, my house assaulted, and my windows broken in the night; was I ever intimidated from pursuing with my utmost vigor the interest of the public? And now, Sir, when the Colonies are united, the opposition general and formidable, my person secure, and no other temptation to revolt but the hopes of pardon; to be thus influenced at this time must betray a versatility bordering upon insanity. Were my small but sincere services ill requited; were I entirely neglected in the dispensation of public benefits, I might be suspected of apostacy from chagrin and disappointment; but the matter is so totally different, that when the establishment of an hospital was in contemplation, I had every satisfactory encouragement that I should be appointed, and in such a way as to have my utmost wishes gratified. The result of this inquiry, may it please your Honor, the determination of this important body is to me of the last importance. I solicit not life; that, I have long held in my hand, a ready, a devoted oblation, to my country; I plead for more than life, I plead, in spite of one act of precipitation, and even that from a virtuous intention, I plead a restoration to your confidence and esteem, to the esteem and confidence of my country which I have never forfeited. If I have inadvertently erred, judge my mistakes with candor. The irregularity of a measure, which they are unable to account for, has alarmed, has startled my friends; their determination is suspended, it rests upon yours.

“I demand your confidence, gentlemen; the warmest bosom here, does not flame with a brighter zeal, for the security, happiness, and liberties of America, than mine; consider, gentlemen; the adopted character sustained through that letter, consider the apparent design, and attend to the concluding urgent recommendation of an immediate accommodation; weigh the labors of an active life against the indiscretions of an hour. Be pleased to consider, Sir, if the letter had arrived, but it never arrived; had it not produced the good intended, it could not have produced any mischievous consequences but to the guiltless, though unfortunate author: Consider, gentlemen, what

a miserable, what an embarrassed situation I shall be flung into, if so unhappy as to incur your censure; here I shall be wretched indeed; objected to the sting of invective, pointed with savage asperity, doubly wretched in having no sanctuary from reproach and ruin.

“The most obstinate and malicious enemy to his country, finds a secure asylum in that retreat where I have sacrificed my fortune for you, and where I am effectually barred by my incessant exertions in your service.

“‘To your wisdom, gentlemen, to your justice, to your tenderness I cheerfully submit my fate.’ Here I was questioned respecting sundry matters which were uttered during my defence by sundry members of the Honorable House, and was directed to withdraw under the conduct of the guard.

“Previous to my departure from the House, I addressed myself to the Honorable Speaker, informing the House, I desired to be admitted to bail, otherwise I was fearful of falling a martyr to the severities of my imprisonment, and then withdrew.

“From my prison in Cambridge, November 1, 1775.

“Attest, B. C. JUN.”

APPENDIX B.

DR. JOHN MORGAN'S MEMORIAL.

TO HIS EXCELLENCY, GENERAL WASHINGTON, COMMANDER-IN-CHIEF
OF THE AMERICAN ARMY.

The *Memorial and Representation* of Doctor John Morgan, respecting his Care of the Sick, and Manner of conducting the Department of the General Hospital committed to his Care.

SIR,

When I was called by the choice of my country, to the station of Director-General of the hospital and Physician in Chief, I left a respectable and lucrative practice against the judgement of some considerable persons in my native city, who, from regard to me, and what they conceived to be my interests, endeavored in vain to dissuade me from accepting the post, truly honorable as they allowed it to be. Their advice had no influence over me. Without hesitation, I sacrificed it, with every future prospect of better expectations from continuing with them to the satisfaction of serving my country, *At The Head Of The Hospital, In The Army, Under Your Excellency's Immediate Command.*

Having had some experience, in times past, of the nature of the department, I have, ever since I took charge of it, made it my constant study, to make myself master of the subject, and to acquire a thorough insight into it. With what success, I do not think can be judged of, from the outside appearances of last campaign, and the causes which prevented the several regulations I proposed, from taking place agreeably to my wishes. It would be tedious to enumerate them all; yet it cannot be amiss to point at some of the principal:

The first of these which I shall mention was the want of sufficient time and opportunity before the opening of the campaign to have all the regimental Surgeons properly furnished by Congress, and made acquainted with their duty, of which many of them were very ignorant, and the *error* of having them look to the General Hospital for those supplies of medicines and instruments, &c which it would have been better to have sent to them by Continental Druggists, who might have the means of collecting and preparing every article in a suitable manner, which it is vain to attempt in a moving army. Another cause was the want of a sufficient number of certain hospital officers and assistants, and the means of procuring them when allowed by Congress, which was late, as Commissaries, Storekeepers, Stewards, Wardmasters, &c.(b) This difficulty was increased from the nature of the campaign, in which, contrary to expectation, it became necessary, to shift the places of the General hospital frequently, and to branch it out in such a number of hospitals widely distant from each other.(c) To these may be added first the want of sufficient help from other departments, which it was impossible to remedy in the state our army then was.(d) 2dly. The neglect of the regimental Surgeons, to report the sick of their regiments in season, and in an orderly manner to the General hospital, though often required in General orders, Resolves of Congress, and otherwise, to do it;(e) and sometimes keeping back their sick from entering into it at all, or till they became very numerous; then discharging them all at once into the General hospital, at the time of an engagement with the enemy, and when the attention of the whole body of hospital Surgeons was necessary to take care of the wounded. And lastly, the frequent and long absence of the regimental Surgeons from their regiments, who instead of sending the sick, as they ought to have done, to the General hospital, had them conveyed to some remote regimental hospitals, where they neither had, nor could obtain suitable necessities for their provision and care.(f) On my first arrival at Cambridge, I set about to establish rules for the General hospital Surgeons. I had heard of many abuses being practised by enormous drafts of expensive stores from

the General hospital, to which, with your Excellency's approbation, to whom I made report thereof, I put a stop and limited the demands of regimental Surgeons to such articles, as Indian meal, oatmeal, rice, barley, molasses, and the like, and required that such sick as wanted others, should be sent to the General hospital, that these things might be dispensed out under my own direction.(g) The next reformation I attempted was to call upon all the Mates in the hospital to undergo an examination of their abilities, in order to select from the number those who were best qualified for the service. This was followed by your Excellency's orders, to see that all the regimental Surgeons and Mates should pass a like examination. I began the task, but the movements of the army, the aversion of Surgeons to undergo these examinations, from which too they were often screened by their Colonels, and by pretence of sickness, &c and the increasing business on hand prevented my proceeding far in it.(h)

When the army lay before Boston, the smallpox frequently made its appearance in it, owing to the number of persons who came out of that city with the infection upon them, which endangered the spreading of the contagion amongst our troops. By the establishment of the smallpox hospital in a suitable place, with proper persons to take care of the sick, and the precaution of sending all infected persons to it, so soon as known to have the disease, and to cut off all town communication betwixt it and the troops, the army was preserved from ever receiving any injury from it. When the troops marched from Cambridge for New York, all the sick were left behind in the General hospital, amounting to upwards of three hundred men. In less than six weeks, during which time but few died, I was able to discharge the hospital of every man, to settle and pay every account, insomuch as never to have had any further demands from that quarter. During this time, with little or no expense to the public but for package and transportation, I collected medicines, furniture and hospital stores, worth many thousand pounds, and sent them on to New York. The like quantity, I apprehend, could not be procured in any part of America. Nor were they obtained for the use of the army, without much trouble and assiduity, owing to strong opposition that was made to prevent it.(k) Besides these, I was able, by means of the subaltern officers in the hospital, some of whom I employed continually at the work, likewise to collect to the amount of near two thousand rugs and blankets, near as many bedsacks and pillows, which were taken up from docks, and were gathered from hospitals and barracks, &c. These being washed and aired served the last campaign when none others could be got, and many of them are yet in good preservation. At New York I collected some hundred sheets, fracture boxes, and other useful articles.

It may be thought perhaps that I place a higher value upon these acquisitions than they merit; be that as it may I am persuaded the like could not be obtained now for much less than thirty thousand dollars, which is equal to the whole amount of what I have ever drawn or expended for the General hospital, in the space of a twelve-month, including the pay of all the officers and all the hospital expenses of every kind, which have fallen within my department to settle, and for the faithful expenditure of the same, I am ready to produce my accounts, receipts, and vouchers, whenever called upon for a settlement. Yet the General hospital has had the constant charge of a number from two to three hundred to a thousand sick and upwards to provide for and attend. Nor have any articles of the public stores been embezzled or mis-applied, nor the sick suffered in the General hospital for want of anything I thought them entitled to draw from the hospital, and that I could procure for them.

The medicines and stores provided as above mentioned have been appropriated with equal faithfulness and strict economy to the purposes of the General hospital; or issued from thence to regimental Surgeons, or remain on hand, subject to your Excellency's order. I have never burdened the Quarter-Master General's department with any unnecessary demand from thence. And as to the Commissary-General, he will do me justice, as he has often declared himself on that head, that my drafts were within the most reasonable bounds. I am persuaded that of the sick who have been drawn for in the General hospital, if none of them have been drawn for at the same time with the well men in their regiments, the stoppage of their rations will go a great way towards paying the whole of the expenses that the hospital has been put to, on their account, for provision and stores of whatever kind.(1)

In a conference I had with your Excellency at Cambridge, on the subject of hospital expenses, you told me, and I took it as a hint of caution and advice to observe the strictest economy in my department (from which I have never deviated) that you were fearful the expenses of the General hospital would exceed the estimate that had been made of them, by a person of experience in General hospital matters. If I rightly recollect your Excellency thought the sum mentioned to be ten thousand pounds sterling per annum. I was surprised, and concluded the gentleman was mistaken; I resolved, however, if possible, to employ such strict economy in the department, as to keep within those bounds, yet was fearful it could not be accomplished, on account of the advanced price of every article of living and hospital stores. Desirous of knowing what were the principles on which he founded the calculation, I wrote to the per-

son that was mentioned, on the subject, in answer to which he informed me, that the estimate, he had given in to General Gates was ten thousand pounds sterling, for every ten thousand men, for six months, and so in proportion, which is equal to £40,000 ster. per annum for 20,000, the number then kept on foot.

At the same time, as one qualified to give me full information, I wrote to him with a view to clear up all doubts, or to confirm my sentiments in regard to the manner in which the regimental Surgeons were supplied in the British service, with medicines and instruments, and to know what right they had to draw stores from the General hospital; to which his answer corresponded with the opinion I had ever entertained of the nature of the service. Till Congress, or your Excellency, should give orders for a different mode to be pursued, I considered myself to be bound in duty to keep the British establishment constantly in my eye, as a directory, making allowance for the nature and difference of the service. (m)

Moreover, I was afterwards favored with your Excellency's opinion on the subject, contained in those observations you was pleased to bestow on the plan of regulations, which by your command I sketched out, for getting again into a proper train, after we had, by one accident or another, been forced from the original plan of a General hospital, and got into confusion, on account of the opposition some of the resolves of Congress of July 17 last, met with from many of the regimental Surgeons, and the impracticability of complying with others of them, in the situation we were then placed. Your words were, "What is the practice in this case in the British army? why should we think of improving upon their system, founded on long experience?"

Upon first entering upon the duties of my station, apprehending that the General hospital was not amply supplied, as I could wish, with bandages, old linen and other implements of surgery, that would be required, in case of an action, I set myself to supply those wants immediately, which I effected with little expense of money, but with great labor, in which I had all possible assistance from the hospital Surgeons and Mates: I collected large quantities of old linen, lint and sheets, made up six thousand bandages, and six hundred tourniquets, for the use of the General hospital, &c, which, though sufficient for a present exigency, I did not think more than might be wanted for six hospitals, which I managed at that time.

Being then desirous of knowing how the regimental Surgeons were supplied, I proposed the calling upon them in general orders, for that purpose, and with a view to learn whether their assistance could be depended upon in the field, and whether they were properly furnished with medicines. Except Mr. Magaw, Surgeon of Col.

Thomson's regiment, and a few others, they had scarcely the shadow of a supply—I gave in a report thereof, with a weekly return of the sick; I also stated to your Excellency what I conceived to be my duty, and that it was limited to the care of the sick in the General hospital. This enquiry into the wants of the regimental Surgeons, made them turn as it were on the General hospital. They wished to furnish themselves from it, with those articles of dressings, which the hospital Surgeons had collected, and made up for themselves, which those gentlemen thought an unreasonable demand. Farther the regimental Surgeons wanted, contrary to all usage, to draw from the General hospital, all they should call for, in the way of stores, whether diætic or medicinal, for the use of the sick retained under their care, in regimental hospitals, and to be provided by me with instruments and bandages, or to fix the odium of their insufficiency at my door. I therefore recommended in my report the necessity of providing (not in the army or General hospital but from Continental Druggists for that was what I intended) "a capital set of medicines, instruments, &c. as soon as possible, and advised that portable chests should be furnished from [for] every regiment for a whole year, at once, and each chest be provided with instruments and bandages." I did not expect, weak-handed as I was, with respect to officers and assistants in the General hospital, from its very establishment by Congress, that this task would be enjoined on me, I thought my duty pointed out by that establishment, as much as I could well execute, and which only related to the General hospital itself; although with an earnest desire of promoting the good of the service, I early pointed out the wants of the regimental Surgeons, and in time for having them supplied with necessaries, after the manner that has always been practised in the British army, I wrote to inform your Excellency, "That my commission only extended to the care of the General Hospital; the plan of establishment by Congress, of July 28, 1775. The list, number and arrangements of officers, and my instructions from Congress, which were wholly silent concerning regiments, their Surgeons or supplies confirmed this opinion," not to say anything of the low estimate, which I had understood was formed for the support of the General hospital. I then gave it as my opinion grounded on the custom of the British army, of supplying the medicine chests by stoppages, "That if the sick, remaining in regiments, were to be supplied at a public expense (and not by stoppages) that expense ought to be made a regimental charge, and might be delivered in with an abstract of the regiment, (or any other better way,) that the General hospital, having nothing to do with the affair from its very nature, ought not to be burdened with their supplies; for then,

on the number of sick admitted in the General hospital being known, the expense necessary for their support could, after a while, be better estimated from experience."

I then called on your Excellency, in the same letter, "for instructions what to do?" I informed you "that the nature and design of the General hospital, being little understood, and the nature of my duty so much mistaken, both by the regimental Surgeons and officers, and many things expected from me, impossible to be complied with, I apprehended it to be absolutely necessary that certain regulations should be fixed upon, to ascertain my duty, and those of the Surgeons and officers under me, as well as those of the regimental Surgeons, which all ought to know, and not hospital and regimental Surgeons only, but in general, every officer of any rank in the army, to prevent interference and mistakes."—

Besides giving this information, in order to bring about a farther explanation of the matter, and with a view to accomplish the end proposed by it; when I came to New York, I laid a plan before the regimental Surgeons, to ascertain their duty, with a draft for a memorial to be laid by them before Congress stating their present difficulties, of which they approved, and I wrote pressingly myself on the subject to the Doctors Committee of Congress; and at various other times I have delivered my opinion on the duties of regimental Surgeons, which may be seen in the general orders, particularly of July 3rd, and July 28th, 1776. But although the sentiments contained in those orders were enjoined by your Excellency to be made the rule of conduct, and I think they were well calculated to answer the purpose, yet they were little regarded by many of the regimental Surgeons, and openly opposed by others.(n)

With respect to the manner in which I came to have the charge of supplying all the regimental Surgeons with medicine chests, &c. contrary to what I had always conceived to be the proper method, or usual for a General hospital, as I had always declared, I beg leave to remark, that the surrender of Boston having put us in possession of a large, though unassorted stock of medicines, hospital furniture, &c. your Excellency was pleased to order me, by the Quarter-Master-General, to put up medicine chests for five regiments, at Boston, Salem and Marblehead, &c. about the time the rest of the army moved to New York. This I cannot but look upon as the beginning of all my subsequent difficulties. When I arrived afterwards at New York, your Excellency was at Philadelphia, and I was repeatedly called upon by letters, and in the way of personal applications from regimental Surgeons and officers, to furnish several regiments that were at New York, and others gone to Canada, with medicine chests. My hope and expectations had been, that out of

the whole stock I had collected, I might be permitted to take such as were wanted for the General hospital, and then to deliver the remainder to any Commissary or Continental Druggist, appointed by Congress or by your Excellency, to receive it, for the use of the public, and particularly for furnishing regimental Surgeons. I received several intimations at this time, from different persons, that Congress expected from me to supply the northern army with medicines and hospital stores. Having received no orders, however, for that purpose and the campaign then opening, I thought it highly expedient to receive clear instructions on that head, and applied for leave to go to Philadelphia, to have a conference with some members of Congress to know what I had to depend upon. Your Excellency gave me leave of absence for ten days, and although it proved too short a time to settle the business of my department, yet I returned punctually on the day appointed.

Before my arrival at Philadelphia, I learned that the Congress had purchased a valuable stock of medicines, which were in the hands of some druggists in town, out of which (on a supposition I imagine that they had more than would be wanted for public use) such considerable sales had been made by permission of Congress, and large quantities sent to the Southward, that it appeared to me there was danger, from the great reduction that was made in it already, lest the best collection of medicines I had ever seen in America for an army, might slip out of the power of Congress from such sale, &c. which might prove a loss they might not have it in their power to retrieve in the whole year.(o) I therefore presumed to caution the committee against it. Upon conferring with them on the subject, as I had, though contrary to usage, been obliged to put up medicine chests for some regiments, I undertook, if I might be allowed such a share of what was on hand as might be wanting from time to time to assort those in my possession, to use my best endeavors to supply regimental chests to the regiments at New York under your Excellency's command, for one campaign by way of trial; for I did not want to shrink from any labor, assigned me, whether my proper duty or not, by which I might serve my country, as far as it was practicable for me to do it.

I did not conceive from all I was able to learn that there would be more than forty or fifty regiments assembled at New York; nor did I suppose that one half of those would come destitute of medicines and chirurgical apparatus, when I heard that the Southward regiments were supplied by the Continental Druggists; and I had taken pains at Cambridge, occasionally to acquaint General officers, Commanders of regiments and regimental Surgeons, with my idea that they were not to look to the General hospital for

those supplies, but have their regiments furnished, where raised, as being the most easy and natural method; nor did I expect such numerous detachments of militia, all of which came unprovided, and looked to me for supplies of every thing they wanted, not chusing to send their sick to be under the care of the Surgeons of the hospital. I supplied from 40 to 50 regiments with medicine chests by the end of August, besides all the branches of the General hospital at New York, in the bowery and neighborhood, and at Long-Island, which reduced many of our capital articles to an insufficiency for the General hospital for the remaining part of the campaign. And these I was obliged to collect elsewhere as well as I could; for although there was a great show of medicines and furniture left, yet many of the principal medicines being exhausted, and other articles not being duly prepared, nor such as were usually called for or wanted for regimental use, that show availed but little. To give what were at hand and could be spared from hospital use, which the regimental Surgeons would neither accept of nor be answerable for, would be, as scripture expresses it, to give one that asked for bread, a stone; or for an egg, a serpent.

It was by your Excellency's command that I shipped off part of the stores as I did, to Stamford, to prevent the whole being lost, in case the enemy should possess themselves of New York. From thence they were sent into the country, as some frigates had got into the Sound, and it was easy to land near Stamford, whereby the stores might be destroyed.(p) It was by a like command that I visited Tappan, Haverstraw, and Orange, to look out for a suitable place for a General hospital; and by your orders, in writing, that I went over to Newark a day or two before the evacuation of New York, to make provision for about a thousand sick, including those wounded at the last action on Long-Island, who were there committed to the care of Doctors Foster and Burnet, Surgeons in the General hospital, with seven or eight Mates to take care of them.(q)

Part of the medicines remaining at New York, were ordered over by the Adjutant-General, to whose personal activity and the assistance he gave to the Surgeons, it is owing, that they were saved. The most valuable part, however, was still left in New-York, when the enemy had affected a landing, drawn a line across the island, and were supposed to be then entering New-York.(r)

At this critical juncture, I went over with some of the hospital officers, and brought off all that had been left, in a pettiauger, which was filled therewith. I had ordered two chests, for hospital use, to be put up and sent to Kingsbridge, it being impossible to get more up there, in a retreat.

The sick and wounded above mentioned were landed in haste

and disorder, at Hobuck, Wehock, &c. Some of our Mates fell into the hands of the enemy, and many of the Nurses and Waiters fled, and the militia ran off and impressed every waggon they could find in the neighborhood. It therefore required some days to get on all the sick and wounded, through many difficulties, from the fright of the inhabitants, and their reluctance to admit of the hospitals being stationed at that place. I had provisions to collect, a Commissary and Ward-Master to seek, and Nurses and Waiters to procure, with every thing necessary for the comfortable accommodation of the sick and wounded. I had but little assistance enough to perform this task, your Excellency having enjoined me to leave the most considerable number of Surgeons and Mates at York Island, in case of need. I made all possible haste, however, to put the hospitals at New-Ark on a safe footing, which I accomplished in about ten days, and then returned to head-quarters.

After this, judge, Sir, of my distress, to find how much this affair had been misrepresented to your Excellency, as I perceived it was by a letter just written to me by your Aide-de-Camp, setting forth the miserable situation to which the sick were reduced, and the clamor for want of medicines, absolutely insisting on an immediate and sufficient supply, for "whilst I was reserving the medicines for cases of emergency, the sick were dying in numbers for want of a necessary supply." I had just sent to an eminent private Druggist, as well as to Mr. *William Smith*, the Continental Druggist, at Philadelphia, praying for a supply of such articles as either I had not, or could not be got at, enclosing each of them a list for the purpose.^(s) Instead of ten pounds of Tartar Emetic, I sent for, four ounces were all I could obtain for the whole army. I prevailed on the Surgeon of a regiment to go express to Hartford, Norwich, Providence, Rhode Island and Boston, to procure medicines, which places were so bare of the articles that we principally wanted, as to occasion a great disappointment. What is more worthy of remark, they never came to hand till a short while before the retreat from Hackensack. I had applied to Governor Trumbull by letter, for some assistance, which though it was sent as expeditiously as possible, took time.^(u) I also applied in person to the State of New-York, at Fish-Kills, hearing they had part of a stock of medicines purchased for the use of that state on hand, and found it had been ordered to Albany for the use of the Northern department.

What made it more astonishing that the number and clamors of the sick should be so great at that time is, that in a consultation which your Excellency, General Green and General Parsons had, a few days before the evacuation of New-York, it was there proposed to send off the sick and all unfit for duty in brigades, with

some careful officers out of each brigade to attend them, and money to defray the expenses of suitable accommodations and refreshments; and a Surgeon was ordered along with the sick of each brigade, that they might not suffer for want of medical assistance.(w) I am still of opinion it was the best step that could have been taken to prevent the sick from falling into the enemy's hands, unless what I once mentioned to your Excellency as my wish could have been accomplished, viz. That protections might be granted to the hospitals on both sides, and the sick not become prisoners of war, but their persons and attendants might be privileged and safe, as was the case betwixt the French and English in the wars of Europe.

Yet all the consequences of the sick suffering for want of necessities—sad spectacles of human woe presenting themselves in towns, villages and on the roads, and straggling through the country, thereby exciting the terror as well as the compassion of the inhabitants; have been ascribed to my department and the officers under me, at a time when we ourselves suffered, and called in vain for assistance from other departments, and so far as we were able, became fatiguemen and laborers to the sick and wounded, as we could procure none from the army, and, as I mentioned before, many of our attendants and nurses fled.

At the time of my greatest difficulty to procure an assortment of medicines, I gave orders to the Apothecary at Newark to afford what he had there, which was all that could be got to dispense; to issue to all applyers for regimental sick, what could be spared at any rate from the hospital practice, and referred such as called upon me for medicines, to him.(x) That did not satisfy all, many expecting, as it seems, wherever they happened to be stationed or wherever any part of the hospital was open for the reception of the sick and wounded, that they had a right to draw any medicines they wanted, and to be furnished from thence with whatever they called for, though that part was only provided for its own consumption, and the Surgeons of the hospital were willing to take care of the sick sent to them for that purpose.

In the midst of this scene of perplexity and confusion I received a note from Col. Grayson, Aid-de-Camp to your Excellency, desiring to know from you, whether I could, or whether I thought it in the lines of my duty to supply the regimental Surgeons with what they wanted; to which I returned for answer, "that I had never conceived it to be properly in the line of my duty, though I had done everything in my power to perform that service, the want of a better establishment, the present being in that respect contrary to every known practice, as I had always declared, and if it was

ever so much expected from me I had not the means." It was then by your order that I drew up the proposed regulations for a better establishment, which I forwarded to Congress so soon as it was returned to me, and herewith send your Excellency a copy.(y) It was to no purpose that I made the same declaration to Officers and Surgeons in general, as I had done to your Excellency. Their opportunities continued as great as ever.

Immediately after this I received a charge to establish further hospitals, to be situated more conveniently for the station of your army at that time. I recommended Hackensack. Every General officer to whom it was mentioned, approved of it, as the most suitable place of all others for the sick of the army on York Island, there being no such convenient place on the island itself, and the enemy had just made a descent above Kingsbridge. I was ordered over the river to view Hackensack, and to report what numbers of sick could be provided for at that place. On my return, I did accordingly report that if a sufficient number of carpenters and masons were set to work immediately to fit up the church, court-house, manufactory and a store house or two, &c. six or seven hundred men, and perhaps more might be accommodated in the town, and neighborhood; but it would require many workmen, and some time to prepare places for their convenient reception. I was then ordered back to carry the plan into execution with all possible diligence. I went accordingly, and next day no less than 300 men were brought into the neighborhood for me to look after, though I was quite alone in respect to help. They daily increased in numbers, so that within a few days they amounted to upwards of a thousand. I had left instructions for Dr. Warren, and a number of Mates and other hospital officers to follow and attend the sick.(z) At first we had neither bread, flour, nor fresh provisions in readiness, nor were Commissaries at hand, from whom I could obtain any help. General Green, to whom I sent to fort Lee for assistance, was gone over to York-island. So soon as my hands were strengthened with Dr. Warren's and Mr. Zabrisky's help, and the appointment of a Commissary and Quarter-Master, difficulties abated by degrees every day, and our affairs got into a more promising train. In the mean while the two armies having marched towards the White Plains, a battle was expected. I therefore hastened to join your Excellency. On my arrival I found the Surgeons of the General hospital, in consequence of orders from head-quarters, to look out for a place for the wounded at a convenient distance, had pitched upon the church at North-Castle, as the most suitable they could meet with. I went to view it and to prepare matters if the enemy's troops should come to action.

Whilst we were getting in readiness, a firing of cannon was heard anew, for there had been a firing heard, the day before at fort Washington. On learning it was at the White Plains, every Surgeon of the hospital then present set out with me, immediately for the Plains, several Mates following, with a waggon, to bring the instruments and dressings. We fixed near the lines, and I never stirred from thence till the enemy retreated, which was about a week after; nor till your Excellency crossed the river, to hasten to the support of Fort Washington. In the mean time, the situation of affairs would not permit me leave to return to North Castle, but for a few hours, to give directions and to assist in providing for the sick and wounded; an hospital Surgeon, and some times two or more, with three or four Mates, attending the whole time at the Plains, in expectation of a second action.

Here I cannot but feel for the hospital Surgeons, who before they could obtain any quarters, except such as a few hours industry enabled them to do, in a country which was not well calculated to afford any good, were suddenly overwhelmed with numbers of sick sent to them, as well as the wounded, in time of an engagement, and whilst many of the regimental Surgeons were absent in the country, having left their corps in the field, without assistance, contrary to the orders of July 3d, at a time when an engagement was considered as inevitable, there were few at hand to give aid. Hence, whilst the hospital Surgeons were preparing matters at their proper stations in the hospital, clamors were excited against them for not being with the troops, and when they were detained at the lines, to supply the places of regimental Surgeons, who ought to have been there; the wounded, who were conveyed to the hospitals, naturally demanded the attention of the whole body of Surgeons, to administer aid to them.(v)

When I was at liberty to repair to North Castle, all my applications for workmen, to put the hospital in order, to construct chimneys, and secure the sick and wounded from cold, the effects of which were severely felt at that time, and of which it is thought some died, proved abortive. Such then as could not be accommodated here, under care of Doctors Adams and McKnight, were sent to Stamford and Newark, to the amount of above a thousand, under the care of Doctors Turner and Eustis, Surgeons of the General hospital, and every accommodation possible was provided for them. Before I go on with this narrative of General hospital proceedings, I shall just observe, that in part of a day and night's time, several hundred sick and wounded, were transported from Long-Island to New-York, amidst a heavy rain, which fell during our retreat. They were landed at different wharves, and carried into different houses,

whilst myself and those about me used all our endeavors to collect them together, into barracks, and hospitals I had provided for them; and although all possible care was taken to prevent it, yet many of them unavoidably suffered, though we were up a great part of the night in this service.

So soon as I was able to attend that duty in person, I gave my assistance in dressing the patients, so that there was not a single one, of those wounded in the action on Long-Island, who were brought to the General hospital at New-York, that I did not dress myself, and I assisted in all operations that I knew of, wherever I was present and could attend; for I always visited as many sick officers and others, out of the hospital, by myself and in consultation, as was any ways possible for me to do, consistent with my other calls of duty.

How much pains I took by writing and conversation to assist in getting the regimental Surgeons on some footing, satisfactory to them, and useful to the army, I could adduce many proofs, if required; that I never could effect it, is what I have to lament. The causes I shall not take up your time to investigate. If the plan, now before your Excellency, should take place either in whole, or part, it may perhaps effect that desirable purpose, where my endeavors must rest.

The orders and instructions I have given to the Surgeons of the General hospital, at different times, are numerous; some of them your Excellency read, approved, and subscribed yourself.

Sometimes when houses for hospitals have been assigned me by public authority, I have met with great opposition in getting possession of them, from protections in favor of the proprietors, and occupiers, or others, as in the case of Stuyvesants, and in those in the Bowry, where a brigade of militia dispossessed the sick of the houses, assigned for that purpose, by the New-York Committee.

To bring this narrative of my conduct to a conclusion. So soon as I heard of the loss of Fort Washington, Fort Lee, Hackensack and Newark, judging your Excellency would require my presence, I left the best directions I could, for the Surgeons of the General hospital on the east side of Hudson's-River, and hastened to join you, which I did, the day after you crossed the Delaware. I was distressed to find your Excellency entirely destitute of Surgeons, at hand, to take charge of the wounded, in case of battle.

With your Excellency's approbation I proceeded to Philadelphia, to lay this matter before Congress, and get an explanation of the meaning of their resolves of October 9th, respecting my being stationed on the east side of Hudson's-River. I applied to several members, and requested an audience, but, on account of the situa-

tion of affairs at that time, it was impossible to obtain it. The Congress was fully employed, and adjourned within a day or two afterwards, to Maryland. The sick were brought daily to the city, in great numbers, objects of pity. For the care of them, I gave the best advice I could to Dr. Potts, who was employed by the Council of Safety for that purpose. Several waggon loads of medicines and hospital articles, which had been preserved from falling into the enemy's hands, and sent from New-York to Newark, and from thence to Philadelphia, were brought to the college, in no good condition. It was my care to collect from them, what was of most value, and chiefly wanted for hospital use, and send to Bethlehem. The rest, by order of Congress, were shipped to Wilmington and Christeen, where I sent a Surgeon to review and see them repacked in good order, and to make out an invoice of the same, and send it to Congress.

I returned to head-quarters, and that day received a letter from an honorable member, which I shewed to your Excellency, giving it as his judgement, that it was the design of Congress, I should attend to the care of the sick on the east side of Hudson's-River, and be restricted to that place, which I could not but consider as a singular restriction for a Director-General.

In obedience, however, to this resolve of Congress, I determined to repair to that station, but found it necessary to take Bethlehem in my way, as my papers and baggage, and most of the hospital Surgeons and Mates of my department were at that place, and to deliver over to some proper persons, for the use of your Excellency's army, the chief articles of the medicines I had sent there. Of these, however, I reserved a few, and comparatively but a few, of such as were wanted, with some few stores, likewise wanted, for the sick on this side, together with my instruments and bandages. But your Excellency having seen fit to send for these, by express, they were accordingly despatched by the same messenger.

Of ten thousand bandages I had prepared for use in the beginning of the campaign, what with the consumption, loss, supplies to the General hospital and regimental Surgeons, few are left.

The difficulties of attending to the wants and demands of so many sick, spread through so great a tract of country, and the clamors which have been raised, in consequence thereof, have induced me to trouble your Excellency with this long and particular detail of facts, and to request your Excellency's order for a court of Inquiry, how the sick have been taken care of, in the General hospital; composed of officers best acquainted with the rules and discipline of war, and of hospital matters; by which it may be known in what manner, agreeable to the establishment of our General hospital, by authority

of Congress, and the instructions I have received, from time to time, from Congress and your Excellency, and the information and assistance I have repeatedly applied for, provision has been made for the sick; that the nature of military hospitals, in general, and of ours in particular, may be ascertained; and if the sick have suffered more than was inevitable, from the nature, peculiar hardships and difficulties of last Campaign, the causes may be known, and a seasonable remedy applied, and those on whom any imputations have fallen, either of neglect or mismanagement, may have an opportunity of vindicating their proceedings, before a proper tribunal, which is what I intreat for myself, and for the department under me.

I have requested Dr. McKnight to take charge of these dispatches, and hope for your Excellency's answer, when leisure will permit; being with greatest deference,

Your Excellency's
most obedient
and very humble servant
JOHN MORGAN

FISH-KILLS
February 1st, 1777.

APPENDIX C.

THE PENNSYLVANIA HOSPITAL, AND REMINISCENCES OF THE PHYSICIANS AND SURGEONS WHO HAVE SERVED IT. BY CHARLES D. MEIGS. PENNSYLVANIA HOSPITAL REPORTS, 1868, VOL. I.

THIS delightful account of the most prominent medical men of Philadelphia in the latter part of the eighteenth and the first part of the nineteenth century is so unique in its interest that I reprint that part of it which deals directly with their personal traits. The whole address is of the greatest interest.

"We esteem the greatest name of the men who in that now somewhat distant day served in the Pennsylvania Hospital was the name of Dr. Benjamin Rush, Professor of the Practice of Medicine in the University of Pennsylvania.

"That eminent physician's renown was not founded alone upon his grand career in the fatal epidemic of 1793, or in like occurrences in years following. It depended far more upon his surpassing and most captivating eloquence, upon his great wisdom, his learning, and the inextinguishable zeal whose fire was not in the least assuaged at the time we attended upon his last course of lectures, at that venerable and beautiful old age which soon afterwards let him gently down into an honored grave, where his remains now rest,

more sacred than the dust that draws thousands of annual pilgrims to the tomb of the Imaums.

"May we not stop a moment just here to express the wish and the hope that ere many years shall have elapsed the statue of that eminent American may find its appropriate plinth in some conspicuous part of the town whose very name is signally honored by his whole life and conversation. May all Philadelphia cry out with one voice *Placet, placet!*

"Dr. Rush, by his actions and his writings, became in a certain sense and extent the American Galen, for we think it cannot be doubted that he did transmit his idea, as a governing and directing element, down through more than half a century of American Medicine, controlling the practice of physic with an authority during that time as potent as was the authority of the great Pergamenian in the far longer series of centuries, from the second until deep into the seventeenth. Yet even to-day the name of Galen is not blotted out; and like Rush's, is only under the eclipse of this progressive age. They are both marking and ineffaceable titles on the roll of history in our Medicine. In a great degree Dr. Rush, though so long ago joined to his fathers, still rules much of the medical practice in many parts of the United States. His was a great mission, and he filled his station well.

"When I was a boy of twelve years old the name of Dr. Rush was a sort of myth in my young ears, and was known by all the people of yon sequestered village on the Creek Frontier; and when in the autumn of 1812 I first entered his lecture-room in the old University building on Ninth Street, I was enrapt; his voice, sweeter than any flute, fell on my ears like droppings from a sanctuary, and the spectacle of his beautiful radiant countenance, with his earnest, most sincere, most persuasive accents, sunk so deep into my heart that neither time nor change could eradicate them from where they are at this hour freshly remembered. Oh! but he was a most charming gentleman! a 'grave and reverend and potent signor' in the scholar class of mankind!

"Now this was one of the men who graced this old Hospital in our young days, with his teachings, his learning, his wisdom, and his manners, formed upon the grand old style of Washington's court, of which, alas! but a few scattered and bowed-down specimens are here and there to be seen lingering in our country.

"There it was, as well as in his lecture-room, that he helped to mould and fashion the manners and deportment of that house in a way to make it specific—characteristical. Yet not to him alone are our thanks due for the form of this school and its individual significance. He had brave coadjutors, whose ministrations there and

elsewhere laid on the brows of Philadelphia the Science-Crown, that shone so far and so bright in those palmy days of his School of Medicine.

"Dr. Kuhn, a favorite pupil of Linnæus, who learned to love him at Upsala, was a man distinguished for learning and probity; an honor to our calling. Dr. Philip Syng Physick, long a pupil and assistant and trusted friend of Mr. Hunter, and long a resident in the Hospital in Mr. Hunter's service at London, was like his master a model of exactness and certainty. I never saw a man who knew so thoroughly well all that he knew. It seemed as if his science and art were ledgered in his brain, so that he could turn on the instant to page and line. Dr. Physick's service in the house was continued during more than twenty-two years, from 1794 to 1816, when he resigned his office. His manners were to the last degree dignified and elegant, and as he still wore his hair powdered and clubbed, he bore about him a sort of traditional look, which added to the respect which everywhere, in public and private, greeted him, always reverently. In the midst of a crowd of students more than five hundred in number, assembled from all quarters of the compass, impetuous, ingenuous hot heads from the Carolinas, restless Georgians, bold sons of Kentucky, and Buckeyes from the Northwest, or the graver students from the North, the moment the Professor entered the lecture-room all was hush, with a general pleased expression murmured all over the amphitheatre, 'and ear and eye attentive bent' to the mellifluous tones of his voice, or the most admirable illustrations of surgical processes that he so profusely supplied. He was a man like a statue of marble but animated by a promethean light and warmth. Dr. Physick was a very marked man in our American world of Medicine, a man altogether peculiar for ability, and therefore most rare and most highly to be prized; he too was one of the men who stamped so deeply into the old Hospital the legend on its name-shield, 'conservatism.' The same motives that lead us to remember Dr. Rush and Professor Physick prompt us to refer to the learned, benign, beloved Wistar; Caspar Wistar, long the able Professor of Anatomy in the University of Pennsylvania, where and from his honorable See he dispensed over the land the precious doctrines upon which are based all our hopes of usefulness and distinction in the profession of physic. He was fully up to the broad level of the time, and he too carried there his grave, serene, most admirable manners as examples of the polite demeanor of gentlemen at the close of the eighteenth century. No student dared to behave unlike a gentleman in his presence. How could such men serve and act and command so long in that house and not leave, like a beautiful ship in the sea, a long bright wake

of gentle light behind! Here too was Dorsey, John Syng Dorsey, a nephew of Dr. Physick, adjunct first, and next full Professor of Surgery, brought up in his likeness, an eloquent, ardent, most able teacher, a gentleman most popular in the Hospital and the school alike, but too soon, alas, snatched from us by the same fatal power that early deprived the world of the admirable Bichat.

"Whoever will read Dorsey's Surgery will learn what it was that common sense said in those times in the art of surgery. Though we have not the least doubt or lack of faith in the great progress of medicine in all its branches in the nineteenth century, must we first say *risum teneatis amici* before we venture to add that we early received Dorsey's Surgery as a man takes his wife, for better, for worse, in sickness and in health, until death doth us part; and though our golden wedding is already past and gone, that we adhere to our engagement then and there.

"That eminent gentleman, Dr. Thomas T. Hewson, with whom it was our privilege to enjoy a long and friendly acquaintance, was one of the good furtherers of our house's name and fame. Dr. Joseph Hartshorne, a bold, highly instructed, and most dexterous surgeon; Joseph Parrish, a model man, from the Society of Friends; Dr. J. Rhea Barton, for thirteen years and five months the ornament and pride of the surgical department of the Hospital, in which his mind had been trained by his very long residence as house pupil, in a department he illustrated by his rare conservatism and acknowledged skill; these and many others whom we love to remember, but yet are too redundant for this our limited space, but among them a man born for the place, and in his own, his right place,—we mean Dr. William Pepper. How can we omit the name of Dr. William Pepper? To name him is to praise him, so extensively known as the admirable clinical lecturer at the Hospital for near twenty consecutive years, and subsequently as Professor of the Practice of Medicine in the University of Pennsylvania.

"Well, then, a child grows up to manhood, forming and forming, and forming his character from day to day, as a slender shoot from the buried acorn comes forth of the ground, and hardens and rises at last into the upper air a strong, unswerving shaft, 'fit for the mast of some tall admiral;' so does a man, a family, a nation take its permanent set and holds on with it to the end.

"The men we have named, and many before and since their day, have, if not created, at least moulded the character of the house; and the result is visible in a wise conservatism which has so long distinguished it, and kept out all rashness; while not moored, but anchored, she swims on the upper stratum of the rising tide of medical progress.

"Now we indulge the hope that these Hospital reports will ever be made in the true spirit of the old conservative institution, and prove to be what they ought to be, clear and truthful expositions and illustrations of the facts and principles of the cases. We would that a multitude of sure indications, both in the diagnosis and the method, which, we think, are of late too much overlooked or ignored in the description of medical and surgical cases, might have their just, and so a considerable, part in every such relation. It seems to us not enough to present morning, and mid-day, and evening statistics of the urine; to say just how many times the heart is beating or the chest heaving per minute; for we love to know not only the number but the force of those motions. The once very expressive word *synochus*,—*synochus fortis* and *synocha pulse*,—which were familiar to the physicians of the earlier days of this century, are rarely heard now. Dr. Cullen's old description of the pulse, '*Principio synocha, progressu et versus finem typhus*,' contains a whole world of doctrine, and ought not to have suffered so great a lapse and eclipse as hides it from the modern student and practitioner alike.

"It is not much for one to learn that a pulse is beating one hundred and thirty times a minute, since a rapid run of two hundred yards can make it beat a hundred and fifty times a minute without harm. What care I, then, for the frequency unless all the rest is made known to me. There is a difference of the greatest import between a *synochus fortis* of 120 and a typhoid of 120. They differ *toto calo* in the prognosis and the indication of method. Our venerable Dr. Rush was accustomed to address us at considerable length on these questions in sphygmology, so wholly ignored at the approaching close of the century.

"It may safely be assumed that almost no physician will ever approach his patient without feeling the pulse, a point on which, so far as we know, most part of medical students are left to their own devices for the study of that important section of their knowledge. This was formerly far from being the case; and the lessened modern attention to that subject is the real cause of what we regard as a serious damage and loss as to our best efficiency in the art of healing.

"There is varied significance in a slow pulse and quick one, in a frequent and a rare one, in a hard and soft, in large and small, in a tremulous, in a vermicular, a dicrotus, and a halting pulse. These differences and their varied significance used to be dwelled on in our Philadelphia teaching, and we long to see a revival of these good and careful old-time instructions.

"In looking out for the diagnosis we love to know all about the hues and translucency of the *adnata*, which reveal the secrets of

many a blood change and many an internal resorption; every movement of the *alæ nasi*, and the repose or malaise of the muscles of expression are worthy of careful notice and record, while the dryness or humidity of the Schneiderian membrane are as worthy of scrutiny as the tongue and mouth, or the epigastrical poke so rarely ignored. How great is the importance of a knowledge both of the number of respirations in a given time and the number of cubic inches inhaled at each respiration; it is a key to the knowledge of the rate of oxidation of the blood and tissues on which so closely depends the life-power; they tell us what the brain and heart as well as the lungs themselves are doing.

"'Mony a pickle makes a mickle,' says the Scotch proverb, and our Dr. Physick would go down to such small things even as sore knuckles in pursuit of useful truth, like a miser who won't ignore scales though he likes nuggets better. 'Why, young gentlemen,' said he, 'I have been many different times called on by persons who at great expense and inconvenience had journeyed hundreds of miles for the sole purpose of showing me their sore knuckles, which had annoyed them for years and cost them large sums in fees without the least avail. The sore knuckles had been supposed incurable. Very well, then! As soon as I saw an obstinate sore upon a man's knuckle, how should I, how could anybody avoid making the reflection that the sore must have been kept up by the motion of the joint, which opened and shut the ulcer dozens of times every day so that it could not heal; or that other reflection, that a sore finger, like a broken bone, requires for its treatment nothing more than a splint.' The Professor then cut from a card a narrow piece, which he converted by bending it into a half-cylinder, adjusted it to the palmar surface of the sore finger, dressed the sore with a cerate to prevent the bandage from sticking to the edges of the sore, and bound it with a narrow roller. 'There! that's all that will cure your finger!' And there never was a sore knuckle that could not be cured in a few days by keeping the ulcer at rest by means of such a splint, so a sore knuckle wants nothing but a splint. He said that his patients were much surprised by the rapid way in which they were cured, to effect which, you see, said he, only a little common sense was wanting. It was this same common sense attribute by which he was distinguished as a practitioner and as a teacher, that led to his great success in the treatment of diseases of the joints, and particularly in the management of morbus coxarius, which he always treated by his curved splint.

"Dr. Physick was a great bleeder, and though not so ultra as Guy Patin, or Botalli, he carried the use of venesection to a very great length. He used to tell us that while he was resident and

assistant in St. George's Hospital, at London, a man who had fallen from a scaffold was brought into Mr. Hunter's ward insensible from concussion of the brain. 'What shall I do for the man?' said the young disciple to his master. 'Shall I bleed him, sir?' 'Bleed him? bleed him, sir? No, sir; you would kill him outright. Wait, sir, until he reacts, and then bleed him—bleed him to death, sir!'

"On this text Dr. Physick founded very elaborate instructions for us who were his pupils. A spoken word oftentimes becomes a guiding idea for a man's whole life, and the hospital pupil never forgot this one.

"One day while strolling along Ninth Street near the University buildings I was overtaken by Professor Dorsey, who hooked arms with me and said, 'Come along with me; I will show you a case.' We entered a house in Market Street above Ninth, where, in an upper room, a man was lying on a bed, pale, breathing very slowly, and perfectly insensible; his pulse was soft and infrequent, and he snored a little at times. 'This man,' said Dorsey, 'fell from a scaffold, and has got a concussion of the brain. He has no fracture of the skull, and yet see how I am healing him. I have done nothing but wrap his head in this towel wrung out of cool water.'

"'Is that all that you are going to do for him, Doctor?'

"'Yes, all for the present. Don't you remember what John Hunter said to Dr. Physick: "Wait until he reacts, and then I shall bleed him,—of course I will!"'

"Of course we cannot pretend to know how far Mr. Hunter's strenuous expression of his opinion—as to the actual status of the brain in concussion, while the heart is beating feebly and faintly because the cerebro-spinal axis has received a shock that half deprives it of its innervating force—was meant to go; but it seems clear that he must have entertained a wholesome dread of the battering power of the reacted heart when impelling its arterial columns into the brain-texture after such a shock and debilitation. For ourselves, however, we do know very well that we have ever looked upon the impulsion-force of a heart roused and maddened into violent reaction as a force truly injective, packing, crowding, and disruptive, under which tissues are melted or broken down as the curtain of a besieged fortress melts and crumbles and is broken down under the driving, disruptive power of the siege guns. We do not deny that venesection may and even has been recklessly practised, for we are familiar with Botalli and Guy Patin, and Valot and Guenault, *et id genus omne*, with old Fagon at their head; but we have heard Dr. Physick, in the latter years of his life, say that his regret as a professional man retiring from the active pursuits of business was, not that he had bled too much, but that persons had

died under his care because he failed to do his whole duty in that preventive and conservative service from want of the needful resolution and firmness. Yet Dr. Physick was by no means a Sangrado. In our young and doubting days we often appealed to him for help and direction; and though we had scrupulously attended at his lectures and illustrations at the University of Pennsylvania, more than once did he terrify us by the exhibition of his dash in the practice of his art. One instance out of many may illustrate our meaning. It was long ago that a woman fell under our charge laboring with a terrible conjunctivitis, one so extremely violent as to threaten her with loss of the eye through ulceration of the cornea, or by a complete glaucoma to which it might perhaps have led. The Professor had filled our mind with a conviction that he was right in pushing the use of bloodletting to *outrance* for the purpose of reducing the injection-force of the heart to a proper balance with the resisting power of the minute arteries and capillaries of the conjunctiva. He had instructed us to bleed daily until this balance of forces should be effected. Accordingly Mrs. Smith, who was agonized with pain, was duly bled, to-day, to-morrow, the next day and next morning, and so on until at last she fainted so badly that terror laid hold of us, and we fled for shelter and for succor to the good man's office in Fourth Street. He was very pale, very sick, and very feeble; yet, said he, 'I will meet you at Mrs. Smith's at ten o'clock to-morrow morning.'

"Now, I declare that my very copious and repeated bleedings, and all my lotions and cataplasms and eye-waters, had not in the least discernible degree lessened the pain, the engorgement, or the redness of Mrs. S.'s conjunctiva. She was half blind already, when, at ten o'clock, Dr. P. accompanied me to her darkened chamber. 'Give me a little light from yonder window,' said he, after examining the pulse. 'Open the shutter a little wider.' Then touching the lids, he looked into the eye, and, after the briefest glance at it, said, 'That will do.' 'Good-morning, madam,' and we left the room.

"'Now, Dr. Physick,' said I, 'I have fully and boldly carried out your plan in the treatment of this ophthalmia, for I have copiously bled my patient daily until I am ashamed and afraid to do so again, because at the last operation she fainted so badly as to greatly alarm me. I fear I am not far from the disgrace of losing an eye in my practice,—a disaster I cannot contemplate with patience. What can I possibly do now?' 'Who is your bleeder?' 'Mr. Conrad Ripperger.' 'Very well; pray, Doctor, send for Mr. Ripperger to take twelve ounces from the arm this morning, and ask him to meet you again at ten to-morrow to bleed her again, provided she should not appear very much better at your next visit.'

"I well remember how shocked I was by this decision, and that I told him it was very hard for me to be convinced, but that I willingly acknowledged his superior wisdom and authority.

"Mrs. S. having been duly bled, Mr. Ripperger was on hand at the appointed hour of the following day; and truer words were never spoken than these, that on looking into the eye I could discover only faint traces of the very violent and obstinate inflammation, for virtually she was cured already. Mr. R. did not repeat his operation, and Mrs. Smith's eye was shortly and perfectly restored to health.

"Many and many were the instances of dangerous ophthalmia that I treated successfully in that line afterwards,—a line in which I should have continued to fight it were it not that I many years afterwards learned that nitrate of silver may be so posologically adjusted as to give to its contacts a destructive, an alterative or curative, or an indifferent force at my option. The important invention of the applicability of nitrate of silver to all accessible superficial inflammations set aside the common necessity and indispensability of venesection to that degree that might have ravished with joy and triumph the best bleeders of the Court of Louis XIV. or of the Virgin Queen's at the courtship of the Duke D'Alençon. Anybody may understand this who will read Guy Patin's letters or Botalli's book.

"If the relation of this incident should happily serve to amuse or interest the reader as illustrating the modes of now long-gone years, we may venture to hope that the following anecdote may in like manner be accepted as a slight yet not unwelcome illustration. We for our part should be very glad in the possession of a diary filled with the whole aspects and words of the Bonds, the Joneses, the Redmans, Kuhns, and indeed of every man who has served in the Hospital from 1755 until now.

"It was in the early winter days of 1812 that, along with a crowd of fellows from Pennsylvania, Maryland, Virginia, the Carolinas, and Georgia, as well as the great West, we were walking the Hospital at the heels of our venerable master, Professor Benjamin Rush. We had come out of the door of the east or cross building in the second story and were passing now into the men's medical ward. Dr. Rush pushed open the door and was stepping into the ward when he suddenly stopped, and looking back upon us, the crowd, said, 'Stop a moment, young gentlemen, if you please; I have an instruction to give you as we stand here at the door.' Then, pointing diagonally over the ward to its northwest corner, he continued, 'Please to look yonder, in the corner of the room, where that poor man lies who has been so long and so dangerously ill. I wish you to

note that he is now lying upon his side. That's all for the present. I call your attention to the circumstance now, but purpose to explain myself more fully when we reach his bedside in due order.'

"Probably not one of us had the least idea of what he meant, and we continued to press around and near him as he went from bed to bed on either side of the ward, explaining to us the state and meaning of the symptoms and the indications, until at length we came together in the northwest corner of the ward, at the couch of the supposed hopeless case of nervous fever.

"The patient, ill with what in that day (so long before M. Louis) was known as nervous, but now recognized as typhoid fever, had been found at every successive visit growing more and more hopelessly ill, and having been for several days profoundly insensible, lying always upon the back, without power to move, led us to expect his death; but now, when we again stood around his couch, Dr. Rush said, 'You remember, young gentlemen, that when we entered the ward by yonder door I stopped, and called your attention to the fact that this man was lying on his side, as you now perceive, and this was the first time for many days. I took it for granted that his strength was increased as he could not have done so else; for a man in a low nervous fever, entirely insensible, and barely still alive, can by no means change his dorsal to a lateral decubitus. I was much pleased, gentlemen, to observe this favorable omen from the door; and now you will find by his pulse, his breathing, his improved animation, for he actually recognizes and speaks to us, that he is decidedly better, leading us to expect that the crisis is past, and that he will entirely recover ere long.' The man did recover, but we never lost any part of that simple, undertoned, but deep-graved lesson in diagnosis and prognosis. If Dr. Physick taught us common sense about sore knuckles, Dr. Rush taught us common sense on the decubitus of sick people, on their gestures and the whole expression of the figure."

APPENDIX D.

LIST OF AUTHORITIES CHIEFLY CONSULTED IN THE PRECEDING WORK ON THE HISTORY OF MEDICINE IN AMERICA.

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Deveze, Jean. An Enquiry into, and Observations upon the Causes and Effects of the Epidemic Disease which raged in Philadelphia from the month of August till towards the middle of December, 1793. By Jean Deveze, Master in Surgery, from Cape François, Physician of the Hospital at Bush Hill, Surgeon-Major and Principal Physician of the Military Hospital established by the French Republic at Philadelphia. Philadelphia, 1794.

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APPENDIX E.

A LIST OF THE MORE PROMINENT MEDICAL SOCIETIES FOUNDED IN THE UNITED STATES FROM THE EARLIEST TIMES TO THE YEAR 1825.

1. 1735. A Medical Society in Boston (extinct).
2. 1749(?). A Weekly (Medical) Society of Gentlemen in New York (extinct).
3. 1765. The Philadelphia Medical Society (extinct).
4. 1766. The Medical Society of New Jersey (still existing).
5. 1769(?). A Medical Society in New York City (extinct).
6. 1780. The Boston Medical Society (extinct).
7. 1781. The Massachusetts Medical Society (in existence).
8. 1783. The American Medical Society (extinct).
9. 1783. The Medical Society of New Haven County (in existence).
10. 1787. The College of Physicians of Philadelphia (in existence).
11. 1789. The Philadelphia Medical Society (extinct).
12. 1789. The Medical Society of South Carolina.
13. 1789. The Medical Society of the State of Delaware (in existence).
14. 1791. The New Hampshire Medical Society (in existence).
15. 1792. The Connecticut State Medical Society (in existence).
16. 1797. The Academy of Medicine of Philadelphia (extinct).
17. 1798. The Medical and Chirurgical Faculty of the State of Maryland (in existence).
18. 1804. The Georgia Medical Society.
19. 1806. The Medical Society of the County of Albany, New York.
20. 1806. The Medical Society of the County of New York.
21. 1807. The Medical Society of the State of New York.

22. 1811. Boylston Medical Society.
23. 1812. Société Médicale de la Nouvelle Orleans.
24. 1812. The Rhode Island Medical Society.
25. 1814. The Medical Society of the State of Vermont.
26. 1815. Physico-Medical Society of New York.
27. 1819. The Michigan State Medical Society.
28. 1821. The Medical Society of Virginia.
29. 1822. The Medical Society of Kings County, New York.

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